WHOLESALER'S SALESMAN

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McGRAW-HILL PUBLISHING COMPANY
330 West 42nd Street, New York, N. Y.

Director of Circulation:
Please change my address on WHOLESALER'S SALESMAN

From .....

.....

To .....

.....

Signed .....

"SEE-ABILITY" *adds manpower!*

Who says they never come back? There are thousands of older, experienced workmen going back on the job for the duration. The knowledge and ability of these men is needed in our war factories—men who know how to handle machines and equipment, how to get things done.

Improved See-ability through good lighting has made it possible for these older men to put their skill to work. For sharp vision, men in their sixties require more light than men in their twenties.

In placing these men, therefore, it is necessary to check up on the See-ability needed for the work they are to do. In many cases this can be improved by making better use of present lighting equipment, checking reflective values of paint, distance of the lamp, avoiding shadows and glare. Helpful suggestions along these lines are included in a Westinghouse booklet, "See-ability for Indoor Eyes." If you would like a copy, simply write Department J-1, Westinghouse Electric and Mfg. Company, Bloomfield, New Jersey. Your local power company will also be glad to help you get more See-ability from your lighting equipment.

TIMES and TRENDS

Concentrated Wholesaling Shortages of materials may be expected to reach their most acute stage during the first half of 1943 and from then on gradual improvement is expected on many items—unless the Allied Nations' position in the war should take a turn for the worse.

Meanwhile, at Washington, in certain quarters there is continuous agitation for a government-operated chain of super warehouses throughout the country. It is proposed that existing retail and wholesale stocks should be put under one roof and distributed by a government agency. Proponents of the plan contend that it would save vast quantities of materials by eliminating needless duplications, would save the government money on all its purchases, release more man power for war purposes.

Donald Nelson, in projecting the possibility that such a plan may be carried out, suggested the creation of some financial pool out of which to compensate retailers and wholesalers who have suffered losses by reason of curtailment.

At any rate the matter will bear close watching.

★

National Wholesalers' War Conference Just as we go to press news comes that the Management Committee of the National Electrical Wholesalers Association expects to call a War Conference, to be held at the Hotel Statler, Buffalo, N. Y. during the week of May 24th 1943.

This war conference will take the place of the annual May meeting of the Association, that generally has been held at Hot Springs, Va. Inaccessibility of Hot Springs and other war-time considerations made it desirable to select Buffalo.

★

Salesmen's Co-op A recent issue of *Sales Management* reports that salesmen traveling out of Wausau, Wis., have informally organized what they call a Cooperative Riders Club; the object being to save gas and tires by having every salesman who travels by car carry a full load of fellow knights-of-the-grip.

In some respects the proposed plan equals that, used by war workers going back and forth, each "member" sharing his car with a given group for equal periods of time.

They have established certain rules for "admission"; a questionnaire must be filled out; efforts will be made to avoid riders with competing or overlapping lines in the same travel group. It is reported that over 200 boards, where "Riders Wanted" and "Ride Wanted" notices may be posted.

Well—maybe it'll work.

★

Low Water Slack That's what coast fishermen call that brief period, between the time when the ebb tide stops flowing "out" and flood tide begins to run. It appears that production of civilian goods has hit that "low water slack" period.

At a press conference, held late in January 1943, Donald M. Nelson, chairman of WPB, said: "I haven't any evidence yet that we've gone too far, (in trimming production of civilian goods) but I also have the feeling that not much more in the way of worthwhile savings of materials for war production can be made by further cuts in the amount of raw materials earmarked for civilian use."

When a business has been put on a toboggan, unwillingly, but in the interest of our war effort, it's nice to find a good reason for feeling that its hit bottom—deepest ebb—"low water slack." Now if we only knew when flood tide will again begin to run.

★

Idle Motors Another war-time job that salesmen, service engineers, expediters, can do to help speed our war effort is—seeing that idle motors, wherever found will be put to work.

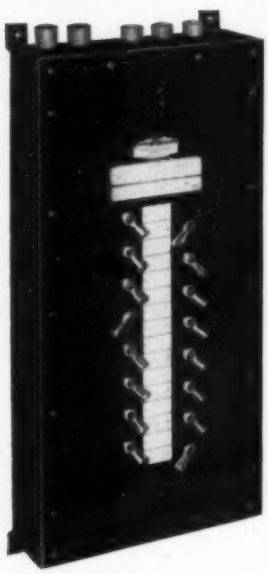
The War Production Board issued Order L-221 expressly to encourage maximum use of existing motors and to prevent the purchase of new motors for use in plants, where suitable motors might be found standing idle and not used for war production work.

WPB urges that idle motors everywhere should be

Dust-tight Panelboards are a MUST *in dust-laden atmospheres*

Guard against explosions that might be set off by exposed arcs. Play safe! Install

(FA) DUST-TIGHT PANELBOARDS



Above: Standard type (FA) Dust-tight Panelboard and cabinet for wall or exposed column mounting. (12" or 15" wide, as required.) At right: Column type (FA) Dust-tight Panelboard and cabinet, with wireduct and pull box. Ideal for 8", 9" or 10" H column mounting.

Underwriters' Laboratories, Inc., have approved them for "Class II, Groups F and G, Hazardous Locations." They are ideal equipment in atmospheres containing carbon black, coal or coke dust, or grain dust. In shell loading plants, coal mines, coal processing plants and grain mills, they are proving a vital protection.

Instead of the usual steel front with door, this panelboard has a solid steel front plate, gasketed all 'round, and secured with screws to the extra wide box flange. It is further rendered dust-tight with welded hubs for conduit outlets, welded box-corners, and handle bushings riveted directly to the steel cover plate. External mounting brackets are provided to maintain the dust-tight construction.

The circuits are externally operable by a mechanism of new (FA) design. The handles operate through dust-tight bushings, and engage the regular handles of the circuit breakers inside the cabinet. ON and OFF positions are indicated on the front of the cabinet.

The (FA) Dust-tight Panelboard may be had in standard type, or in narrow column type. It is of the circuit breaker type, with either the new (FA) Type AC Thermag or (FA) Dublbrak circuit breakers (or other types of lighting branch-circuit circuit breakers) . . . Capacities: 50 amperes or less, for 3 wire, single phase, or 4 wire, 3 phase mains, with lugs only. Available with 4 to 42 circuits . . . Frank Adam Electric Company, St. Louis, Mo.

EST. 1891 — THE SIGN OF A BETTER JOB

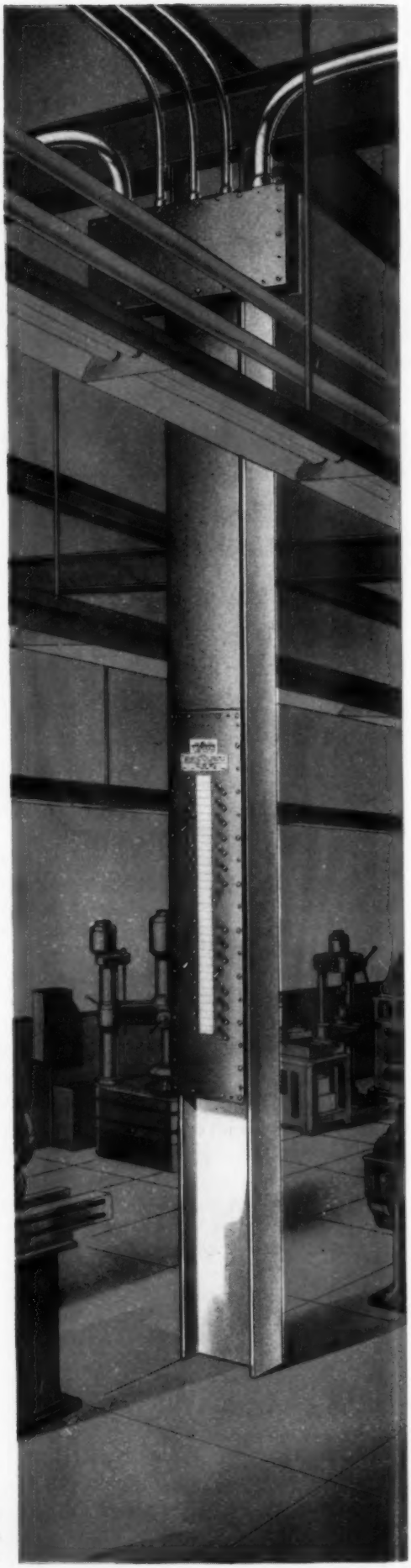
Frank (FA) Adam

ELECTRICAL PRODUCTS

for War Industry

FRANK ADAM ELECTRIC CO. ST. LOUIS, MO. U.S.A.

(FA) Electrical Equipment includes: Busduct, Wire and Cable Duct, Service Equipment, Panelboards, Switchboards, Safety Switches, Knife Switches, Floor Boxes, Fan Hanger Outlets, and related equipment.



either sold to motor dealers or listed with the General Industrial Equipment Division of WPB. Salesmen who are on their toes can help our war effort by acting as clearing agency in this motor shortage. They will also help both the seller and the buyer of now idle equipment and at the same time build business and good will for themselves and their house.

★

Conversions Continue Indications are that the wave of industrial conversions by no means has run its course.

According to a study, recently concluded by Dun & Bradstreet, almost as large a proportion of manufacturers who converted in the first half of 1942, will be forced to make changes in products in 1943.

Every conversion, be it merely a change-over of machines or of an entire plant, makes demands for electrical materials and the orders from such sources carry high priorities ratings. Moral is: Salesmen should keep in the most intimate contact with every industrial establishment in their territory.

★

Fluorescents Wholesalers and manufacturers who have on hand quantities of fluorescent fixtures should write at once for Information Circular No. 1, as issued by Mr. M. N. Waterman, Chief of the Lighting and Fixtures Section, Building Materials Division, War Production Board, Washington, D. C.

They will find that earnest effort is being made to adjust rulings so that existing inventories can be disposed of as quickly as possible. Orders with B-2 or better preference ratings qualify for shipment. One wholesaler with insufficient stock to fill a qualifying order may draw on others to get what fixtures he needs. Those who need financial assistance, because the L-78 order has tied up their funds, may apply to the nearest District Office of the Reconstruction Finance Corporation for assistance.

★

Fuse Limitation Further tightening of restrictions on fuse sales *by manufacturers* became effective January 21, 1943 under an amendment to Order L-161. After that date deliveries of fuses by manufacturers may be made on only orders rated A-1-j or higher.

Meanwhile wholesalers, contractors and dealers MUST continue to ship fuses from stock for their customer's requirement WITHOUT insisting upon priorities ratings. It is pointed out that wholesalers must not insist upon priorities ratings on fuses before selling because under WPB rulings no rating is legally required.

Wholesalers are expected to use Form PD-1X to keep their stocks replenished and maintained at adequate working levels.

NOTICE TO SUBSCRIBERS

Readers of WHOLESALER'S SALESMAN will observe that the "trim size" of the current issue of the magazine is slightly smaller than that of previous numbers. The reduction in size has been made to enable the publishers to meet an order of the War Production Board limiting the amount of paper that may be used in 1943. Subscribers will note, however, that no change has been made in size of type or in the amount of editorial content per page, but that a substantial saving in paper has been effected merely by trimming the margins.

The publishers have adopted the new size as a war measure and as a contribution to the conservation of manpower and transportation facilities in the production and distribution of paper. Service to the reader has not been sacrificed and will be maintained as far as humanly possible in the face of the problems confronting all of us in our united efforts to win the war.

★

Home Front Casualties War Manpower Commission Chairman Paul V. McNutt recently pointed out that since Pearl Harbor, casualties of American workers through accidents have numbered 46,300 dead and about 4,000,000 injured. In the same period our armed forces reported casualties of 58,307 including those missing.

Undoubtedly many of the home-front casualties and thousands of injuries could have been avoided if proper lighting intensities had been provided for every worker.

★

Co-ops Keep Growing A report on 1942 co-op activities published by *Advertising Age* says that "Consumer" Co-ops claim a sales volume of $700,000,000 for 1942.

Co-ops in the United States and Canada are reported to own 49 manufacturing enterprises including oil refineries, flour mills, fertilizer, paint, tractor grease and canning factories; also printing plants, bottling works and bakeries.

Co-ops already were "big business" in Sweden and Great Britain before the war and they are growing rapidly on this side of the Atlantic. Fortunate that fast moving, quick turnover consumer items are the main stem of their success, BUT with hundreds of government-sponsored REA co-ops in existence, the trend in that field is well worth watching.

EDITOR

FLEUR·O·LIERS

..because minutes count in a WAR

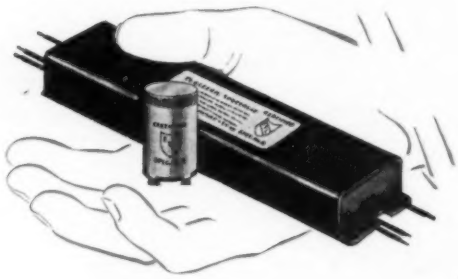
Certified
FLEUR-O-LIER
The Manufacturer guarantees by affixing this label that this Fluorescent Luminaire is a duplicate of samples found by periodic examination to comply with the minimum requirements as set up in the
"SPECIFICATIONS FOR LUMINAIRES, FITTINGS AND AUXILIARIES FOR FLUORESCENT LAMPS"
which are sponsored by the Manufacturers of Mazda Lamps
ELECTRICAL TESTING LABORATORIES
NEW YORK, N. Y.
E·T·L
A COPY OF THIS CERTIFICATE SHOULD APPEAR UPON EACH UNIT OR PACKAGE
E·T·L
FLUORESCENT LIGHTING FIXTURES EMPLOYING EXISTING TYPES OF LAMPS ARE NOT RECOMMENDED FOR SCHOOLS, OFFICES AND SIMILAR LOCATIONS UNLESS LAMPS ARE SHIELDED FROM DIRECT VIEW

LOOK FOR THIS LABEL ON THE FIXTURES YOU BUY

Minutes count in any kind of war work, that's why equipment *must* stand up, whether it's a lathe or a fluorescent lighting fixture. FLEUR-O-LIERS—meeting 50 rigid specifications set up by expert engineers of the MAZDA Lamp Makers—are built to "take it."

Check these vital features

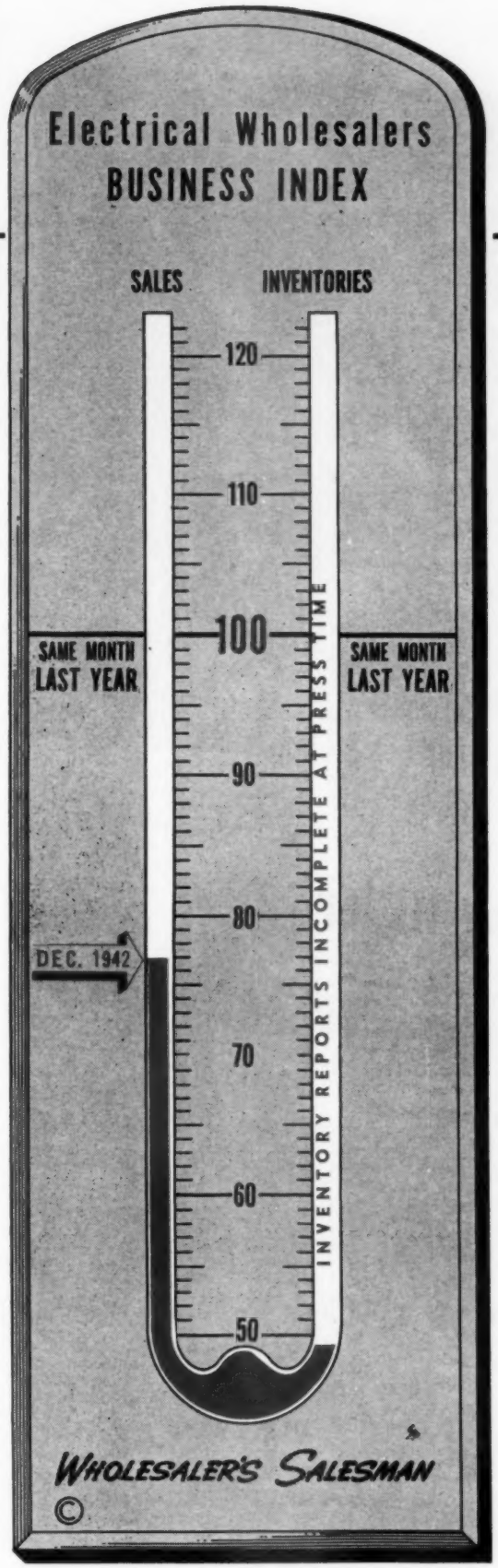
Impartial experts—Electrical Testing Laboratories, Inc., of New York, test and Certify FLEUR-O-LIERS as meeting such important points as high power factor, flicker correction, brightness control, safety, maximum light output, correct heat dissipation and many others. To plant electricians, maintenance men and production executives, that means more than just "lighting."



Certified Ballasts and Starters Guard the User

For example, ballasts and starters, the "control units" of every FLEUR-O-LIER fixture, are also tested and Certified, *for the protection of user and specifier.* That means full

WHOLESALER'S SALESMAN



Business Index

For the Month of December 1942

SALES Sales of electrical goods by wholesalers in December were 7 percent above the total sales registered for the previous month, according to the average of reports from 305 wholesalers throughout the country.

This is the greatest increase over a previous month that has been seen on the index since April, 1942, and appears in pleasant contrast to last month's reports which showed that November sales were 11 percent below those of the previous month.

Only 3 months of 1942 showed sales at a point higher than the volume of the previous month, and none of those months were close enough together to indicate a trend. However, the increase shown by December 1942 over November follows the trend suggested here recently when it was pointed out that sales for each recent month were registering closer to the volume of the previous month. This trend started in April, with sales in September hitting 100 percent of the previous month, October climbing up to 101 percent, and December showing on the current index at 107 percent of the previous month. Only November did not follow the trend as its sales volume dropped to 89 percent of the October level.

In the year-to-year comparison, sales during December 1942, as reported by 305 electrical wholesalers throughout the country, show 23 points below those of December 1941. This loss is, however, less alarming than it looks when it is remembered that for the 1941 holiday selling season, electrical wholesalers still had large (some of them excessive) stocks of appliances of various kinds of which the majority probably moved out under December invoice datings.

INVENTORIES The number of reports available from wholesalers at the time of going to press was not sufficient to justify publishing an index figure on inventories.

COLLECTIONS Reports from 206 wholesalers showed that collection percentages averaged 73 percent. This is 4 percent less than the revised collection figure for the previous month, and 7 percent behind the figure recorded for December, 1941.

SOURCE These monthly reports covering the business activities of electrical wholesalers throughout the United States are collected and compiled by The Bureau of the Census of the U. S. Department of Commerce.

The Copper Wire that will Hang Hitler

WIRE for Electricity. Wire to carry power to the machines that turn out our tanks, our shells, our guns. Wire for our ships and their equipment. Wire for the Army and its Signal Corps. Wire for bombing planes...carrying our attack to Nazi-land itself. Ignition wire for airplane, truck and tractor motors. Wire for everything it takes to win the war.

Who makes it? Men! Machines, yes, but above all, men. American workmen, handling copper wire in its processing, just as their friends, sons and brothers handle rifle and machine gun on the firing line.

In the Country's Service—at Our Daily Tasks

The man who helps get out the work on an essential job is just as much a soldier as the man who meets the enemy face to face. Work clothes, too, are a uniform—and no less proudly worn than a soldier's khaki or a sailor's navy blue.

At General Cable Plants, coast to coast, an army of men is daily speeding shipments of Electrical Wires and Cables that the Nation urgently needs. Uncle Sam is counting on them; counting on their turning out a perfect product, every time, every foot of it. It is he who takes our Company output and guides it to the jobs on which it is most needed. It is he for whom all of us are working.

Each of Us Has a Personal Responsibility

In our homes, among our friends, and on the job, every American, every man who hopes for the liberation of countries across the sea, has a personal part to play. We are confident of ultimate Victory... but we must *WORK* for that Victory, work harder than we ever worked before. We must put Victory first in our thoughts, in our actions, and in our speech. *We Shall Win the War—together.*

What General Cable Makes:

Telephone and signal wire for the Army—miles of it.

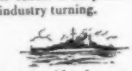
☆

Wire for military use from Iceland to New Caledonia, and at all points between—north, south, east and west.

Welding cable for tens of thousands of workers at tank arsenals, shipyards, and war industries everywhere.

☆

Power cables to keep the wheels of war industry turning.



Shipboard cables for every service from lowest stokehold to mast-head crow's nest.

Ignition wires, coil windings, and service wires for automotive equipment, airplanes and every other thing that's gasoline motor driven.

☆

Wire for essential industry, wire for defense worker's homes, power wires, lighting wires, big cables, tiny strands —everything for electricity, and all of it for WAR!

GENERAL CABLE CORPORATION

Manufacturing Plants from Coast to Coast

ARMY E NAVY

Bome, N. Y. and Perth Amboy, N. J. Plants

BARE AND INSULATED WIRES AND CABLES FOR EVERY ELECTRICAL PURPOSE

GENERAL CABLE

This and other General Cable advertisements in influential magazines and newspapers endeavor to focus public attention on the industry of which you and we, jointly, are integral parts.

The Electrical Wholesalers of the nation may be proud of what they have done and are doing to keep War Industry's Production at its peak until Victory is won.

C O R P O R A T I O N

WHOLESALER'S SALESMAN BUSINESS INDEX

REGIONAL ANALYSIS for DECEMBER, 1942

A WELL-BALANCED spread of sales gains throughout all but 2 groups of states is reflected in a regional analysis of the 7 percent gain made by wholesalers in December over the month of November. Regional increases over the previous month ranged from 4 to 18 percent, while only 2 regions showed losses.

Most evident in these month to month increases, were regions 6 and 7, the East South and West South Central States, where wholesalers reported sales in December at 14 and 18 percent, respectively, above the November levels. These regions have been holding up well in recent months, but were not the out-standing groups in comparisons of month to month sales gains.

In contrast, the New England and Pacific Coast regions, which during the defense and war production period generally have been ahead of the national average, show figures for December which are, in one case equal with, and in the other below the national figure for that month.

In comparison with December 1941, which stands as one of the peak months in the period when the war program was shifted into high gear, December 1942 shows one region, the Middle Atlantic, with an increase of 3 percent, while the rest of the regions report losses from 8 percent.

One of the interesting factors noted, is that the greatest losses in sales, when compared with December 1941 were registered in those regions that already were to a greater or lesser degree, important industrial regions when the Defense Program was inaugurated. These apparently needed a lesser amount of materials in order to prepare for and maintain maximum industrial output under the Defense and War Programs.

Another interesting observation is that in the Pacific region, which has the largest number of new plants, wholesalers have maintained a volume through December 1942 that is only slightly below the volume of the same month of last year. This fact seems to support the theory that when most of the plants in a territory are operated on a 3-shift, 24 hours per day basis, maintenance requirements are an important factor in keeping up sales volume for wholesalers. This demand offsets the drop in volume those wholesalers would normally suffer when the new construction, which originally built up their high level of sales volume, is completed.

This theory is substantiated further by the fact that December 1942, sales, when compared with December 1941 volume, maintained approximately the same level in the New England area with its majority of old factories, as in the Pacific states where most of the war factories are new construction.

Once more the number of reports on inventories received from wholesalers was insufficient to justify any conclusion on a nationwide basis.

However, tabulation of available reports indicates an exceptionally large range between different regions of the country. It is very evident that wholesalers in the central sections of the country were much slower to take advantage of WPB machinery for supplying wholesalers with replacement stocks, with the result that, within the last 60 to 90 days, many have found themselves with depleted inventories of copper wire, fittings, and some other items which are highly essential in servicing war production plants and military needs.

WHOLESALER'S SALESMAN NEWS

WPB's New Distributor Set-Up Involves Drastic Changes

Revamped organizational structure, new executives, vital changes in procedure, moving, are part of "present" coming from WPB for Distributors' Branch's first birthday

WASHINGTON, D. C.—The Distributors' Division of the War Production Board is being subjected to a process of reorganization, that has already caused significant changes in personnel and may eventually result in important changes of procedure, presumably all for the purpose of obtaining greater efficiency.

No one, either within or without the department, seems to have any definite idea as to who or what is responsible for the young earthquake that hit the Distributors' Division early in December. However, everybody knows that it did hit, and hit hard, and since then there has been much speculation as to what may finally evolve out of the changes.

In some quarters the opinion prevails that a request for a needed increase in floor space for the division may have been the spark that set off the explosion. Elsewhere it is thought that the re-shuffling was more or less inevitable and that the only question was when it would happen and what would come out of it.

Personnel Changes

From the standpoint of electrical wholesalers the most significant resignations were those of Linford C. White, Chief of the Distributors' Division and C. McKew Parr, Senior Electrical Consultant.

While the reorganized set-up, as it appears to shape up at this writing, does not provide for any executive position with a title similar to that carried by Mr. White, it is indeed fortunate for electrical wholesalers that the man who has been appointed to head-up the entire new organization spent practically his entire life in the electrical industry.

Mr. Nathaniel G. Symonds, newly appointed director of the branch, by which the WPB matters that concern various wholesalers of "hard goods" will be handled, spent practically his entire business life in the Westinghouse organization, his last post being that of vice president and general salesmanager.

With that valuable background of experience, Mr. Symonds obviously is completely familiar with the place that the wholesaler occupies in the distribution of electrical and industrial supplies and therefore may be expected to handle their war-time problems with sympathetic understanding.

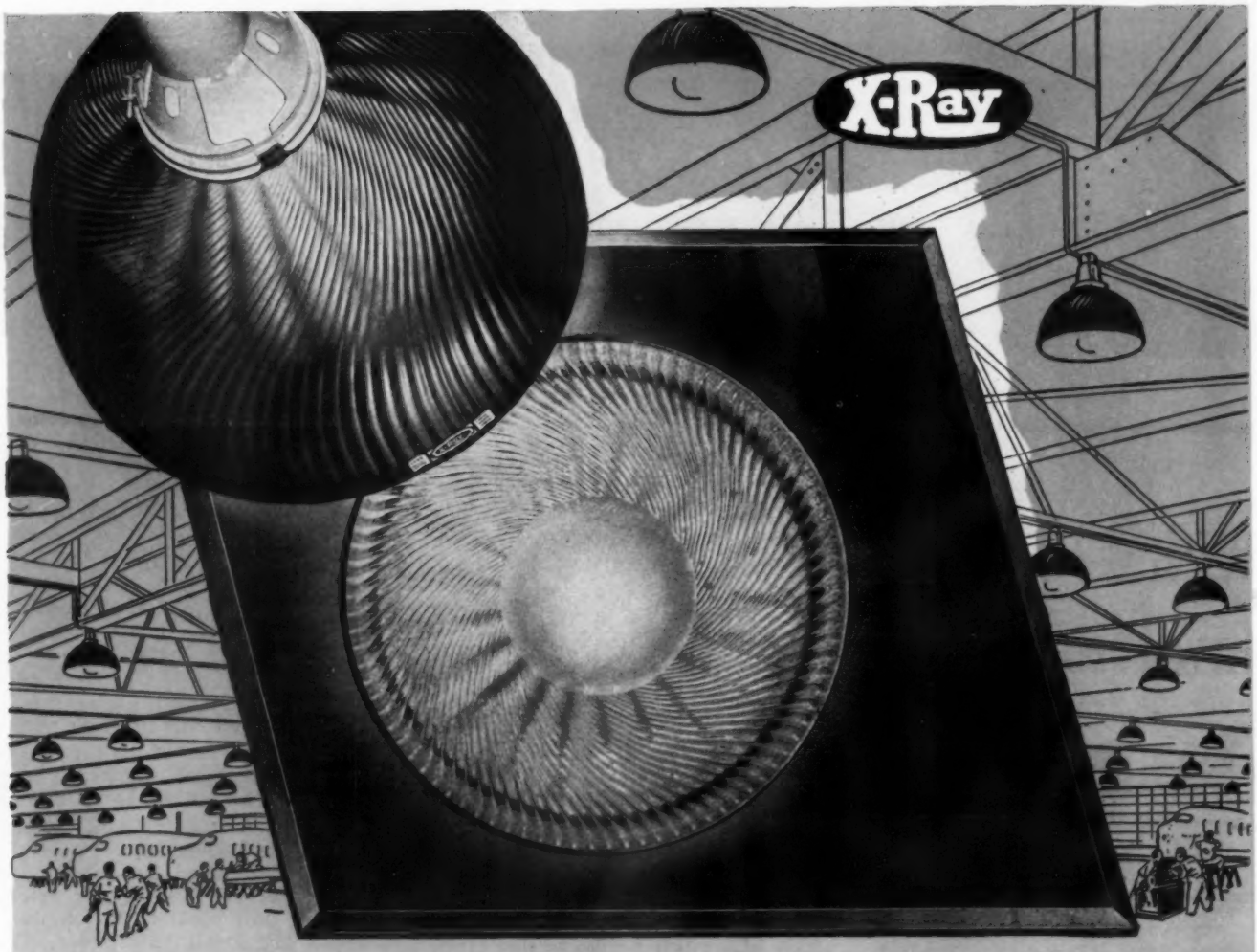
Equally fortunate for electrical wholesalers is the fact that the new chief, who will head up the entire Wholesale and Retail Trade Division, covering both "hard" and "soft" goods, also was drawn from the electrical industry.

Mr. John A. Hurley, until recently one of the executives of the 1900 Washer Company, is thoroughly familiar with wholesalers' functions and the many operating problems that have arisen as the result of materials short-

RETIRING OFFICERS OF DISTRIBUTORS' DIVISION

Linford C. White, Chief Distributors' Division

C. McKew Parr, Senior Electrical Consultant



SILVER MIRROR

GLASS REFLECTORS

SHARPEN VISION FOR FASTER WORK

Easy to get—now

Less-critical materials

Easy to install

Low-cost maintenance

Long lasting

Highly efficient

The smooth, controlled light from "X-Ray" Reflectors makes for speed, safety and accuracy with fewer rejections and less fatigue. Readily available, "X-Ray" Reflectors are made of highest quality silvered glass—the most efficient reflecting surface in commercial use.

There are "X-Ray" Reflectors to accommodate from 100-watt to 1500-watt incandescent lamps and the 400-watt Mercury Vapor lamp. The larger reflectors are for general high and low bay lighting and the smaller for local lighting such as over benches and in laboratories.

Our new industrial lighting booklet, Serial 2130, describes these units fully. Write us or your Curtis representative for a few extra copies to pass out to your best prospects.

CURTIS LIGHTING, INC.

6135 WEST 65TH STREET • CHICAGO, ILLINOIS

ages, priorities and other government regulations. Furthermore his experience with Sears, Roebuck and Company, which brought him into direct contact with nationwide wholesale and retail operations may be expected to prove a valuable asset in his handling of the many questions that he will have to settle in his new and highly important post.

The New Set-Up

Under the plan that is now being put into effect, all wholesalers' priorities operations will be handled within the Bureau of Consumer Goods, of which Louis Greenleaf is the Chief.

Part of that bureau will be the Wholesale and Retail Trades Division of which Mr. Hurley is the chief. Within this division will be two branches, that which will handle "soft" goods with Dr. Eaton Read as director, and the "hard" goods branch which Mr. Symonds will head up as director.

Then within that "hard" goods branch it is expected to establish separate sections for automotive, electrical, hardware and industrial supplies respectively, each to have its staff of consultants and processors for expediting the flow of essential materials to the wholesalers in those fields.

Threatening to Move

While the changes in organization and personnel of the Distributors' anchorage within WPB came as a shock to many who are active in the trades involved, individual "hard" goods wholesalers and associations were at first not seriously disturbed over the effect of these changes on their future place within our war economy.

However, much concern has been registered, since it was announced that WPB is giving serious thought to moving the entire Wholesale and Retail Trades Division, now located at 462 Indiana Avenue, out of Washington to New York.

Those familiar with the efforts that have been required constantly to meet the reasonable needs of wholesalers throughout the country, point out that daily contact with various branches of WPB is almost indispensable to efficient and speedy functioning of the branch that serves the wholesaling trades. They contend, furthermore, that removal to New York soon would result in a slowing up of the flow of replacement stocks to warehouses and thereby make it difficult for wholesalers to supply war production plants with the materials they need to keep the wheels turning.

In some quarters the suggestion was voiced that if it is necessary to do some moving, the "soft" goods branch might quite properly be moved to New York, not only because the industry and trades there involved already center in that city, but also because those trades need contact with only a few of the different war-time agencies.

In contrast, the many and varied products covered by the "hard" goods branch involve the use of many different critical materials and, so it was pointed out if the industries concerned are to serve the war effort to the utmost, those handling these priorities problems must be able to gain quick access to officials of the rubber, the copper, the steel and other materials divisions of WPB, something that would be impossible if this branch is removed to New York.

Meanwhile many of the electrical wholesalers who have been working within or with the Distributors' Division, as constituted up to now, have expressed regret that Messrs. White and Parr found it impossible to remain away longer from their own businesses without inviting serious consequences.

Those who are familiar with the evolution of the various war agencies in Washington generally have given Mr. White credit for being really the father of the distributors' set-up. He went to Washington as Dollar-a-Year man late in 1941 when no operating plan, nor organization was in existence. Under his leadership, the Distributors' Branch, as it was first known, grew steadily, until a year later it commanded a large staff of experts in the automotive, electrical, hardware, industrial supplies and other wholesaling lines. Its operations increased from the handling of a few priorities problems per day, until the system and organization, created from scratch, was handling several hundred PD-1X clearances daily.

Mr. Parr also "joined up" as Dollar-a-Year man late in 1941. As Senior Electrical Consultant he was instrumental in inaugurating many of the processes and plans that were found helpful in handling the particular problems of electrical wholesalers that have been arising constantly due to the fact that electrical products involve the use of so many different critical materials.

Mr. Parr's decision to resign was speeded further when he was elected to the Connecticut State Legislature, which meant that under the Hatch law he became ineligible for Federal office as soon as he was sworn in as member of a State Legislature.

Mid-West Wholesalers Meet—Discuss Priorities Problems

Big attendance and keen interest mark Chicago meeting between WPB officials and Mid-Western wholesalers

CHICAGO—More than 150 electrical wholesalers from nine important Mid-Western states gathered in the large assembly rooms of the Chicago Electric Association Wednesday, January 13, 1943, to obtain from officials of the War Production Board and its Distributors' Division first hand information on various priorities problems.

Sponsored by the Chicago Electrical Wholesalers Association under its managing director, veteran wholesaler A. J. McGivern, the meeting was organized at the urgent request of members who had felt for sometime that they wanted some official from the Distributors' Division to come and answer a few vital questions.

With the Chief of Chicago's regional WPB office and Harry Stevenson, Chief Analyst of the Electrical Section of the WPB Distributors' Branch at the speakers' table, it was therefore no surprise, to find everybody hurrying to get through with dinner so that the quiz period could begin.

No surprise either, was the fact that after two hours of the crowd pitching questions, and Harry Stevenson tossing back clear and concise answers, Master of Ceremonies McGivern finally had to take pity on Harry and call a halt.

Next, D. Lyle Fife, President of Fife Electric Supply Co., Detroit, and also first president of the 34 year old National Electrical Wholesalers Association, complimented the sponsors on the fine attendance and pointed out the importance of group-action and associations in perilous times such as the present.

Mr. Fife's talk set the stage for Charles G. Pyle the newly appointed managing director of NEWA, who resigned the sweet job of general sales manager of Sylvania Electric Products' lighting division to carry the ban-

Thou Shalt Not

Government Orders Affecting Electrical Wiring Construction

LIST OF PROHIBITED ITEMS FOR CONSTRUCTION WORK—Issued by Army and Navy Munitions Board—the basic document for practically all construction directives. For Electrical Wiring Construction it recommends, "Minimum type of wiring **without** metal boxes, Individual conductors supported as in the usual Knob and Tube Systems." It requires the use of Non-metallic outlet boxes, restricts and prohibits such other metal wiring materials as conduit and armored cable.

WAR DEPARTMENT, ENGINEER CORPS CIRCULAR LETTER NO. 2122—Requires conservation by the use of PORCELAIN outlet boxes and Knob and Tube Wiring, restricts the use of such metallic materials as conduit, armored cable, metal boxes, etc.

DIRECTIVE FOR WAR-TIME CONSTRUCTION —"Utilize those materials which are most plentiful and which will cause the least interference with production of combat material. **Electrical systems shall be of the simplest designs.**"

WAR HOUSING CRITICAL LIST—Stipulates the use of non-metallic wiring construction (Knob and Tube) and non-metallic type outlet boxes, restricts the use of metal in wiring construction.

WAR DEPARTMENT—Theatre of operations and Mobilization Construction Secs. XXXIII and XXXIV —Exterior and Interior Electrical Work—In general wiring systems shall be based on the use of open wiring on insulators, concealed Knob and Tube Wiring. Outlet Boxes shall be of Porcelain, composition. Secondary rack bases shall be of hard wood.

WPB-L-165—Prohibits the manufacture of armored cable.

WPB-L-225—Restricts the manufacture of conduit and prohibits its use in any construction except under special conditions.

WPB-M-126—Prohibits the use of iron and steel material for housing, not otherwise specified in this order—except to the extent specified in War Housing Critical List.

ENFORCEMENT—The Spirit as well as the letter of these directives must be complied with. Violations must be followed by proper disciplinary action and imposition of suitable penalties.

The fulfillment of requirements for the War Effort has created shortages in the supply of such materials as copper, rubber, steel and other metals. The above orders, as they affect electrical wiring construction, were made only after it was assured that safety and efficiency would not be impaired.

It was only natural that the need for conservation should point to the use of Knob and Tube Wiring—for it not only uses the least amount of materials but its 50-year service record has proven its safety, efficiency, durability and economy. Porcelain outlet boxes and other porcelain wiring materials make practical the installation of a wiring system almost void of steel and reduce the amount of copper and rubber used as well.

You as an Electrical Wholesaler can aid the War Effort by compliance with the above directives, encouraging the simplification of Wiring Construction and use of wiring products made of non-critical materials. Write today for our catalog and "Installation Manual on Porcelain Protected Wiring Systems."

"Porcelain Points the Way to New Wiring Progress."

PORCELAIN PRODUCTS, INC.

FINDLAY, OHIO

ner for the electrical wholesaling industry. Mr. Pyle told the audience that NEWA has a comprehensive program of activities under way, that calls for advice or assistance from the association are welcomed, that cost of membership in the "National" is insignificant compared with the benefits that are available to members.

Topping off an exceedingly interesting and instructive program, M. of C. McGivern read a report on the job he did in connection with WPB Order L-225 covering conduit and metallic raceways.

The results of Mr. McGivern's diplomatic handling of a very pressing problem created by that order, it was claimed, not only will protect our war production plants from unwarranted delays or dangerous stoppages but will give wholesalers a chance to sell material now, as well as after the war is over.

Because no official registration was asked of those present, WHOLESALER'S SALESMAN'S reporter was unable to obtain a list of all who came but to prove that important wholesalers from 9 states actually attended Mr. McGivern provided the following list: FROM ILLINOIS—R. R. Byrket, Danville Electric Supply Co., Danville; W. R. Kiefer, Kiefer Electrical Supply Co., Peoria; E. Von Driska, Rock River Electrical Supply Co., Rockford; Karl Boggess, Universal Electric Co., Peoria; J. W. Barnes, U. S. Electric Co., Springfield; T. D. Phillips, Westinghouse Electric Supply Co., Peoria; FROM INDIANA—Thos. J. Farrell, Farrell-Argast Electric Co., Indianapolis; J. Risk, Kirby Risk Co., Lafayette; B. W. Sheets, Joe McCaffery, The McCaffery Co., South Bend; FROM IOWA—Titus B. Schmid, Crescent Electric Supply Co., Dubuque; J. B. Terry, Terry-Durin Co., Cedar Rapids; FROM KENTUCKY—Lawler, Tafel Electric Co., Louisville; FROM MICHIGAN—D. L. Fife, H. M. Hopkins, Fife Electric Supply Co., Detroit; Chris Litscher, Litscher's Wholesale Electric Co., Grand Rapids; FROM MINNESOTA—J. M. Vilett, Northland Electric Supply Co., Minneapolis; Walter Stephenson, Sterling Electric Co., Minneapolis; FROM MISSOURI—Ben H. Cohen, Glasco Electric Co., St. Louis; C. E. Vail, United Electrical Supply Co., St. Louis; FROM OHIO—J. J. Bogdan, B. & B. Electric Co., Cincinnati; Edw. P. Rueth, Frankelite Co., Cleveland; FROM WISCONSIN—C. Thalman, Bottis-Johnson Electric Co., Milwaukee; Gerald Lappin, Lappin Electric Co., Milwaukee; Russell Beckerman, Standard Electric Supply Co., Milwaukee; Fenneberg, Lovdall, Westinghouse Electric Supply Co., Milwaukee.

OWENS-CORNING FIBERGLAS Corporation receives the Army-Navy "E." Shown at the Newark, Ohio, ceremonies are, left to right, Rear Admiral Clark Howell Woodward; Governor John W. Bricker; Harold Boeschenstein, president of Owens-Corning; Colonel Ernest A. Rudelius; and Ben E. Boyd, manager of the Newark plant.

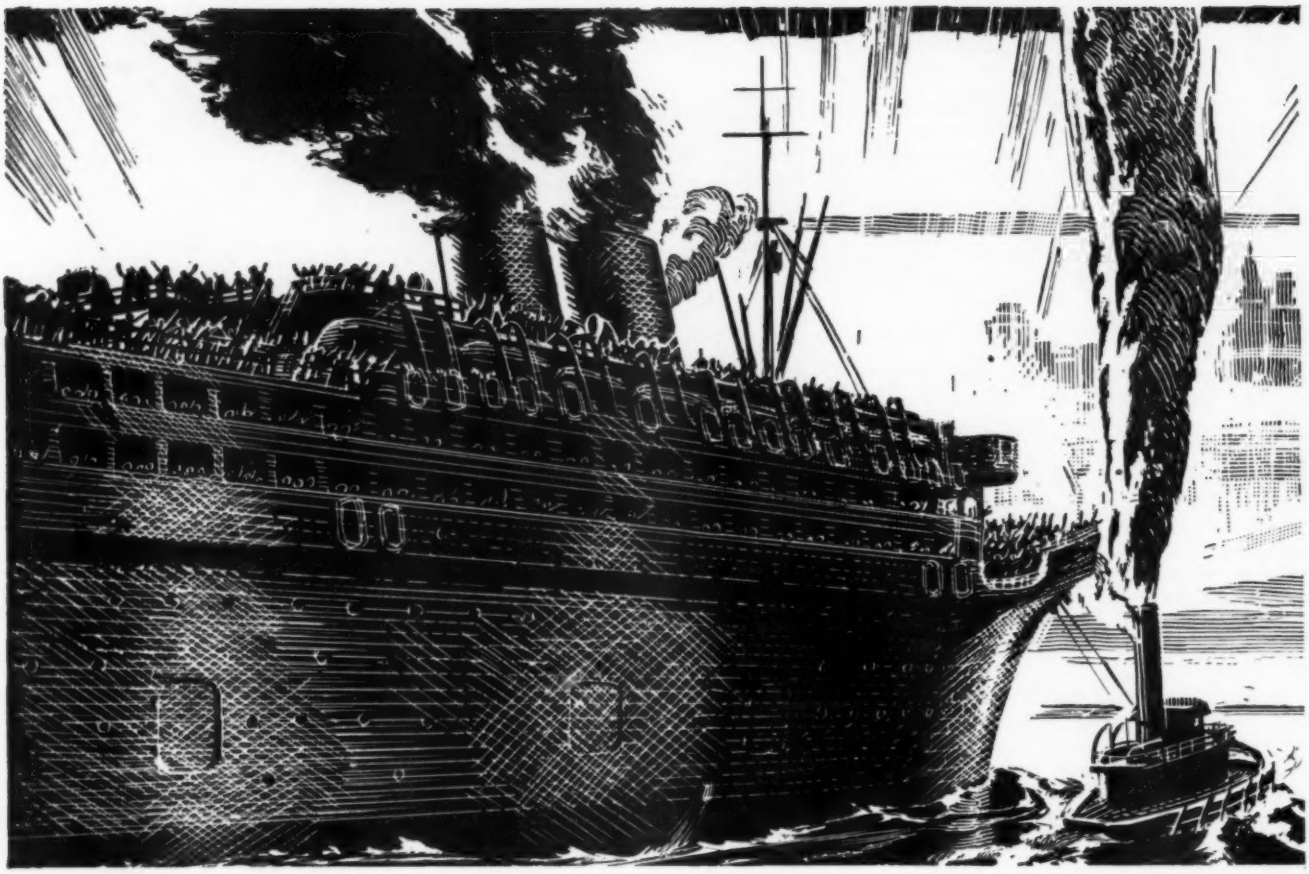
Wholesaler's salesman, James E. McGirr, far right, photographed at a dinner which honored his receiving a solid gold bomber pin in the GE Bomber Builder campaign. With him are, left to right: E. E. Cuny, of Cuny & Guerber; H. A. Olson, assistant manager of GE's Atlantic Division; Walter Guerber; and H. B. Myrtle, manager of the Atlantic Division of the Lamp Department.

N. Y. Jobber Wins Gold Bomber Award

By smashing lighting bottlenecks in seven relatively small war plants, James E. McGirr, of Cuny & Guerber, electrical wholesalers in New York City, was recently awarded the gold bomber pin. The pin, awarded by the Lamp Department of General Electric Company, signifies that McGirr boosted production in the seven war plants to a point that the time saved more than equaled the amount needed to build a 4-engined bomber.

The men participating in the Bomber Builders activity have received recently two folders which describe the various emblems awarded to outstanding salesmen and others who are fighting successfully with light. One large folder carries the names of 155 lighting men, each of whom has already

(*Continued on page* 63)



AMERICA...*Where Castles in the*

SOME day, no matter how long and hard the interim, the first transport load of victorious troops will head for home. Long before we see it, men crowded on its decks will watch a phenomenon no other shores present.

Tiny cubes and spires will appear upon the horizon. Slowly, they will rise and rise until they tower above the ship in the majestic symmetry of an American skyline.

► As our sons and brothers pour ashore, the post-war world will begin—whether we are ready for it or not.

It behooves us to be ready.

In a war, it's a good rule to produce weapons in fear of defeat, but also to produce peace plans in fear of victory . . . And when we plan for peace, let's see that our "Castles in the air have their feet on the ground."

We know our men will come home to a land of tall buildings, fertile fields and swift transportation. Those things were in being when they went away.

But our post-war world will depend upon how we *use* the tools at hand, not upon the mere fact that we have them.

We *could* embark upon a vast new expansion of industry, based upon new production techniques and the use of light metals, plastics, and electronics.

We *could* foster world-wide trade that would raise the living standard of all peoples to our own level.

If we *could*, why not do it?

► We'll muff the job unless we keep our air castles tied to the ground. We have the ability and the will, but we may not understand how jobs are made and civilization is spread.

If we hold on to the fact that art, science, political experiments, luxuries AND necessities *all* must have their foundations in healthy industry, we will be more careful about doing the things that will keep business healthy.

When we realize that business progress is the foundation of all improvement, our tax laws will stop confusing personal profit (salaries and dividends) with reinvested profit.

► Profit held for reinvestment is the SEED MONEY of business. It is the money a business saves from current operations to insure future growth.

Business will need billions of "Seed Money" dollars when the war is over. But, under the present tax law, they cannot save as they should for that rainy day.

You hear lots of talk about the jobs that will result from the transparent automobiles and the sky-sedans

Air have had their Feet on the Ground

that industry will build after the war, but not enough talk about the need for SEED MONEY to turn those hopes into realities.

The practical fact is that business cannot adjust itself to post-war production without "seed money."

► "Seed money" will pay for the research that must come before new and better post-war products can be built. It will pay for retooling when new models are produced. It will pay for the study of methods to get the lower costs that will make it possible for more people to buy. It will pay for setting up new distributors and dealers, and for hundreds of other activities that are involved in the *growth* of business.

The tax law should be adjusted to allow business to accumulate funds for these necessary tasks of post-war development.

Ask your Congressman to see that American business is given a chance to create jobs after the war, be revising the excess profits tax so as to leave the "seed money."

THE McGRAW-HILL NETWORK OF INDUSTRIAL COMMUNICATION

22 publications, which gather "war-news" from the "war-production-front" through a staff of 153 editors and 725 engineer-correspondents . . . More than 1,500,000 executives, designers, production men and distributors use the editorial and advertising pages of these magazines to exchange ideas on war-production problems.

McGRAW-HILL BOOKS

Publishers of technical, engineering and business books for colleges, schools, and for business and industrial use.

McGRAW-HILL

PUBLISHING COMPANY, INC. . . . 330 WEST 42ND STREET, NEW YORK

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Today . . every Benjamin activity . . everything Benjamin manufactures . . is designed to contribute to the Winning of the War

OUR WAR TASK

IS TO HELP WAR PLANT PERSONNEL KEEP ON TOP OF THEIR JOBS!

By Providing the Lighting Units that Make SEEING Easier, We are Helping to Safeguard Employees' Health, Efficiency and Safety

BENJAMIN PRODUCTS

*

INDUSTRIAL
LIGHTING EQUIPMENT
including fluorescent, incandescent and mercury lamp units

EXPLOSION-PROOF UNITS
DUST-TIGHT UNITS
VAPOR-TIGHT UNITS
FLOODLIGHTING
EQUIPMENT

*

MARINE LIGHTING
EQUIPMENT
MARINE WIRING DEVICES

*

SOCKETS AND
OTHER WIRING DEVICES

*

SIGNAL EQUIPMENT
including Sirens, Horns, Buzzers and Telecode Relays

*

If you have a problem relating to the use of any of the above products, write the Benjamin Electric Mfg. Co., Product Information Department, (Division GG), Des Plaines, Ill., for data and recommendations. Benjamin services in the solution of such problems are available without cost or obligation of any kind.

It is the duty of everyone in war production and essential industrial and military tasks to keep in best possible condition; to be physically strong and mentally alert.

HOW "RIGHT KIND OF LIGHTING" HELPS US TO KEEP IN PEAK CONDITION

The personal experience of men and women employed in war tasks shows that the right kind of lighting is an important factor in keeping them on top of their jobs. By making it easier to see, the right kind of lighting minimizes eyestrain and thus reduces fatigue.

War production experience has shown that protection against eyestrain fatigue:

—makes the job less tiring

—increases alertness against accidents

—conserves reserve energy needed for sustained effort and provides additional protection against the ill effects of fatigue.

Today all of these things are vitally important. The ever increasing demand upon all of us for "*most production with the least amount of defects and spoilage*" is a goal that we cannot fully achieve unless we are physically fit.

Laboratory experiments and actual plant experience show that the basis of the right kind of lighting must be enough light, which in most war production plants should be somewhere between 30 and 50 foot candles—even more for certain types of precision work.

WHAT IS THE "RIGHT KIND OF LIGHTING"?

However, there is much more to the right kind of lighting than sufficient light for the specific seeing task. Ease of seeing depends also upon the quality of the lighting, its proper direction, diffusion, uniform distribution, and brightness.

It depends upon the elimination of glare from exposed and improperly shielded lamps in the lighting units; the elimination of reflections from shiny surfaces; the elimination of deep shadows and spotty lighting; and choice of proper lighting units for the seeing task and physical requirements of the location and operation.

To provide the lighting units and engineering counsel which will insure the right kind of lighting to war production plants, the army, navy and merchant marine, is Benjamin's major war task . . a task in which every man and woman in the Benjamin organization in the plant and in the field, is proud to have a part.

BENJAMIN ELECTRIC MFG. COMPANY, DES PLAINES, ILLINOIS

BENJAMIN TRADE MARK

LIGHTING EQUIPMENT

By Howard J. Emerson

Selling the Marine Field Helps Speed "Ships for Victory"

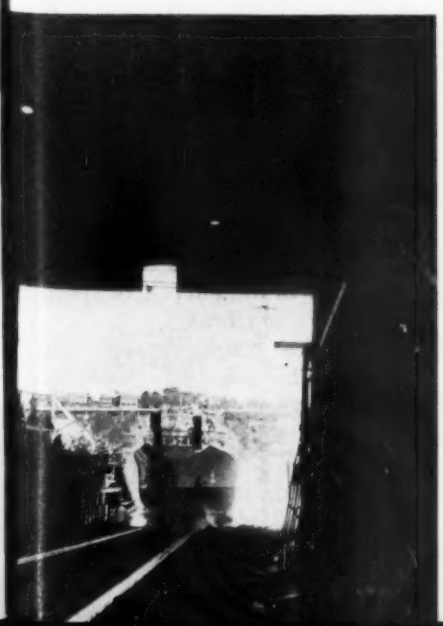
The important naval and merchant building program has need of the electrical wholesaler's many services. But only the wholesaler who prepares carefully can do a worthwhile job in this highly specialized field. This is Part I of a three-part article

THE electrical wholesaler who can take on the distribution of electrical supplies for shipyards will be putting his services to work in the front line of one of the most important home battle fronts of this war. And he will be entering a branch of the electrical wholesaling industry where the priority is AA-1 and the preference ratings are close to those for aircraft and tank manufacture.

Shipbuilding and ship repair constitute a field that needs the services of the electrical wholesaler so that it may keep up the terrific pace which has been set. It needs to be made even more conscious of the many services electrical wholesalers can offer and of the time and money that can be saved by utilizing these services. The advent of more wholesalers with marine departments equipped and trained to serve the shipyards, will do much to establish the electrical wholesaler more firmly as a vital agency in the construction of this country's all-important merchant and battle fleet.

During peace-time there was very little shipbuilding and only a small amount of ship repairing—and most of this activity was centered in a few east and west coast and gulf ports. Purchasing was more or less a leisurely job based on long-range planning of shipbuilding and repairs. Most of the electrical materials were ordered through one of the few electrical wholesalers who had departments specializing in marine products, or (very often) directly from the manufacturer.

Today, the shipbuilding industry is one of the major parts of the war effort. There are hundreds of shipyards, large or small, some located in well known ports, others in small coast towns or tucked away in little known bays or inlets. All are operating at peak performance. The quantity of electrical materials required for ships has skyrocketed. The problems associated with ordering, buying and expediting delivery of these materials in today's market has increased in proportion. The electrical wholesaler, then, becomes a natural asset to the shipbuilding industry because he has the knowledge, experience and facilities available to help the shipbuilder solve these problems.



Active shipyards like this one are now common in many out of the way places on our coast and inland waterways today.

To operate a marine department successfully, the wholesaler will have to first create the necessary set-up within his office and stockroom, and then both the inside and the outside sales staff must be carefully trained for special duty. The inside set-up will receive attention in this, the first article of a series. In subsequent issues, WHOLESALER'S SALESMAN will carry Parts 2 and 3 of this series, one covering the outside sales of marine supplies, the other analyzing the special field of ship maintenance.

The Market for Marine Supplies

The wartime market for marine electrical supplies falls into two obvious divisions, the one made up of the shipyards owned by or under contract to the government agencies and engaged in building or repairing ships, the other consisting of the ship owners who buy supplies to maintain their ships in operation.

Electrical materials sold to these yards may be used for shipyard

maintenance and construction, or they may go directly into new naval craft, merchant ships, transports or small boats. Some of it will be used at our coastal ports to repair damaged ships, and other orders will leave this country for use at some unnamed world port or naval base.

There is little, if any, difference between the products sold for use in shipbuilding and those sold for ship repairing, but there has been found quite a difference in the problems confronting the wholesaler who handles these orders. As a rule, materials for the building of new ships are ordered in large quantities and well enough in advance of construction to permit more time for the wholesaler to place his orders with the manufacturer, get the necessary priorities and clearances to fit into the manufacturers production schedule.

When electrical materials are needed for the repair of ships, the situation may alter radically. Any delay in repairing a damaged naval or cargo vessel means a loss in time during which the ship cannot perform its function in the war. Not only that, but most repairs cannot be scheduled very far in advance. Even when repairs can be planned ahead of the arrival of the ship, it may be only a few days or a week —very little time indeed, in which to collect an assortment of needed items when one considers the current materials shortages and the overtaxed production schedules of the factories that make these things.

Therefore, to meet successfully the requirements for ship repairing demands the utmost in agility, resourcefulness and service from the wholesalers, even though they do not approach in quantity the amount of materials purchased for ship building.

Products to Carry

Many electrical wholesalers have set up marine departments without adding very much to their regular stock. There are reasons for this, too. One, naturally is the limitation order which holds down the wholesaler's inventory. The only way he can build up a stock of specialized marine products is by using available priorities to obtain marine equipment in place of the original material wherever that is possible and allowable. As more products for

A large part of the marine market is made up of the construction and maintenance of the shipyard facilities. This requires more standard electrical materials, compared with much special equipment needed for the actual construction of the ships.

shipbuilding need AA-1 priority, such a switch is not easily accomplished. Furthermore, the government has discouraged the building up of large stocks of marine supplies because they are needed so badly for immediate use in the tremendous shipbuilding program.

When the wholesaler decides to expand his stock of special marine goods, he should first investigate the shipbuilding markets he expects to serve. From them he will find out what type of vessels are being constructed, and that will give him a general idea of the types of products which will be needed in a hurry. Only after he has a thorough knowledge of the specific requirements of that market can he afford to try to build up an inventory of marine products. Should he succeed in building up a stock of large fittings of the the type used on large cargo ships or naval vessels, for example, and then find his market to be made up of shipyards mass-producing mostly subchasers, landing barges, or auxiliary vessels he would be injuring himself and the war effort.

Selling Franchises for Marine Products

A wholesaler can't set up a satisfactory marine division without arranging for the distribution of special marine products, particularly those made by manufacturers who work only in this field. They can usually be found by locating their advertisements in trade publications and directories.

Arranging for distributorships, according to the reports of some wholesalers, is not any too easy. Most of the manufacturers involved, during peace-time, worked directly with the shipyards or through a few wholesalers in the established shipbuilding centers. Those manufacturers are loaded with orders that came through the above mentioned channels. Consequently, they are not, as a rule, interested in putting their products in the hands of more electrical wholesalers, even though a few have realized that the spreading out of shipbuilding has made such wider distribution necessary and strictly in the interest of speeding up the war effort.

There are other reasons why many manufacturers have been reticent about selling through wholesalers. Orders for marine goods are chiefly made up of items that have required a considerable amount of

preliminary development work on the part of the naval architects and some fittings have been designed for special purposes and cannot be used elsewhere. Hence some manufacturers believe, and they have some justification for feeling, that the average wholesaler is not equipped to handle orders that require so much care in writing specification or actual engineering work. While in that contention, they overlook the fact that the wholesaler's real long-pull service generally begins after the preliminary engineering work has been completed, the existing situation makes it more important that the wholesaler who wants marine business take particular pains to get the right start. That means, first, to create a well-equipped and well-informed office and sales force, and second, to sell the manufacturer on the fact that the wholesaler has prepared for this task, has practical knowledge of the field, and that in addition he has many other advantages and services to offer which will be valuable to the manufacturer in the efficient handling of his products.

Office Arrangements

Within the wholesaler's establishment, only a few changes need be made in order to handle marine products efficiently—but these few are important. Primarily, a specific location should be arranged for the telephone contact man so that he can be surrounded by all the material he needs, can have ready at hand all the marine product specifications and full data on the various government rules and regulations. Such complete segregation has many advantages. It permits the directing of all telephone calls regarding marine products to that one desk and to that one well-informed individual. All manufacturers' salesmen can then be sent to this desk. What new information they have can be filed immediately where it is needed most.

However, when a wholesaler can't devote one inside man exclusively to the marine department, an arrangement should be made whereby the data, catalogs and price sheets on marine products can be filed separately for ready reference. Such a system has two purposes: 1) to make it easier and quicker to find prices and specifications on special marine products, and 2) to make certain that whatever marine data has been collected is kept away from prying eyes. The latter is important because in some cases there is considerable military value attached to the specifications or descriptions of components of our naval or merchant ships.

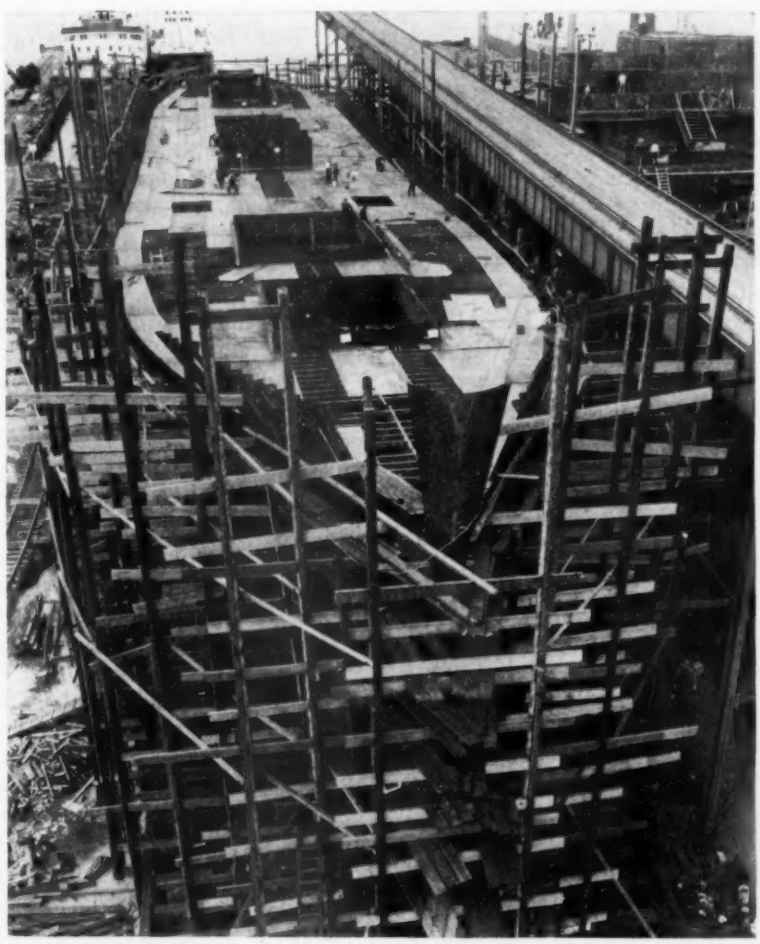
Stockroom Changes

There is a decided difference of opinion regarding the necessity of making a separate section of the stockroom for the marine products that the wholesaler handles. On one side is the idea that these special products can be arranged best when incorporated within the regular stockroom system and subjected to whatever coding or numbering system is in effect. The other opinion is that the nature of special marine products and the requirements of the field being served, warrant having a separate section of the stockroom for these materials. The reasons given are that the rush orders can be filled more quickly when the stock is kept out of the regular system, and that a quick check can be made to find out the amount of stock on hand.

The wholesaler who is planning a marine department must consider his own stockroom set-up and the amount of stock he has left in his stockroom and then decide which of the two systems would serve him best.

With a market that warrants his setting up a marine department, and with office and stockroom facilities organized to serve this field, the wholesaler is ready to consider the personnel requirements. The organization, training and functions of the inside and outside salesmen in the marine field, will be covered in a later issue.

Ships like these C-3 cargo vessels (liberty ships) are being slid down the ways at a fast pace today. Wholesalers with adequate facilities and knowledge of the marine field can serve these shipbuilders and help speed "ships for victory." OEM Photos.



Show Your Customers These 5 Ways To Conserve Copper

WPB PRESS RELEASE 10/64—"In spite of the fact that the United States has control of approximately two-thirds of the world's copper production, the growing war effort demands all of it, and more. Shortage of shipping from South America is a further hazard to the amount of copper available. Every pound that can be obtained from every source is needed if the war demand is to be met."

OBVIOUSLY stringent conservation of the nation's limited copper supply is vital to the success of the war effort, copper being a critical material highly necessary in the manufacture of (1) shell casings, and (2) cable, bus bars, and other electric equipment. In the electrical field, particularly, opportunities for effective conservation are numerous.

Recent engineering studies indicate that there are five methods of copper conservation that can be applied in designing electric systems for war plants. The application of these methods will materially reduce the amount of copper for any given electric distribution system without decreasing the efficiency or reliability of the system in any way.

Briefly, the five steps—whose effectiveness has been amply proved by a number of installations so laid out and now in successful operation—are as follows:

(1) Cover as much distance with high-voltage circuits and as little with low-voltage as possible.
(2) Locate sub-stations in the *centers* of load areas.
(3) Use small size sub-stations.
(4) Distribute power at the highest practical voltage.
(5) Use cable with high-temperature insulation.

Savings Per Plant Are Measured in Tons

The application of these five principles results in the conservation of tons of copper per plant. For example, here are representative savings made recently in a new plant 400 feet wide by 700 feet long (not very large in the light of present standards) with a total electrical load of approximately 3000 kva. If, in this case, an old-style distribution system had been used with one large, concentrated sub-station, and long, heavy, low-voltage feeders, 12 tons of copper would have been required.

However, by the new plan of load-center distribution, embodying the five principles of copper conservation, it required only *seven* tons. Thus, a saving of five tons or 42 percent was effective in this single plant! That's enough copper to make about eight thousand 37-mm. shell casings.

Load-center Power Distribution

Load-center power distribution, which automatically embodies practically all of these copper conservation principles, offers the wholesaler's salemen an excellent opportunity to do missionary work helpful to the war effort, paving the way for sales of associated equipment.

The modern load-center system for industrial power distribution is built around the use of packaged equipment—primarily factory-assembled unit sub-stations, and metal-enclosed switchgear. Although a comparatively recent development, these compact equipments are now being promoted and installed by several electrical manufacturers.

Associated Equipment

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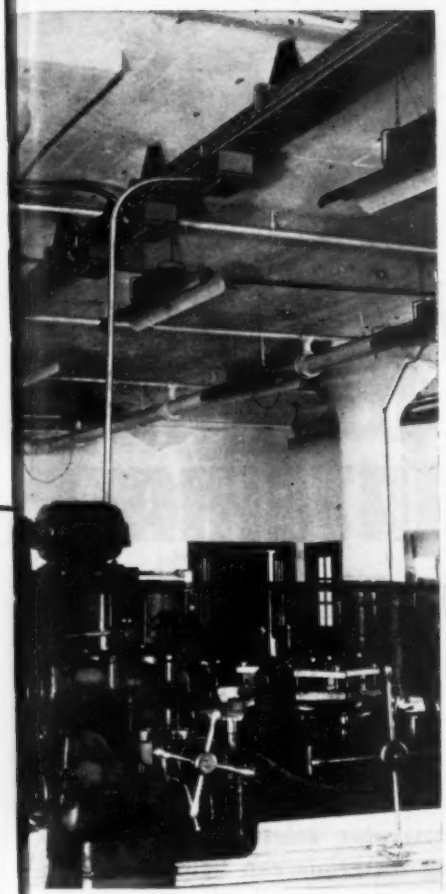
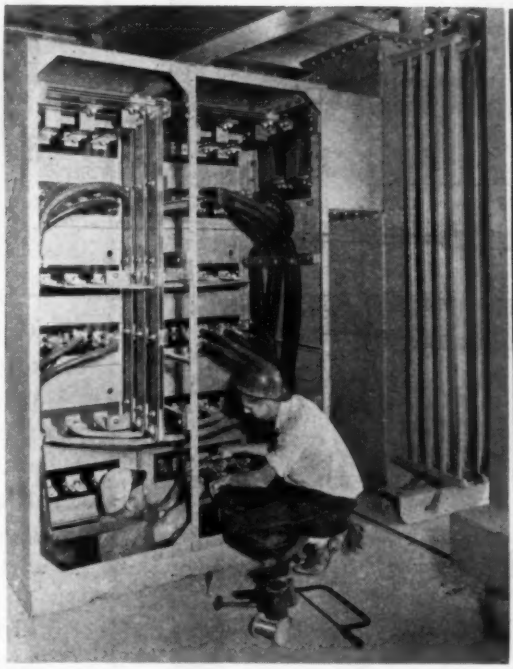
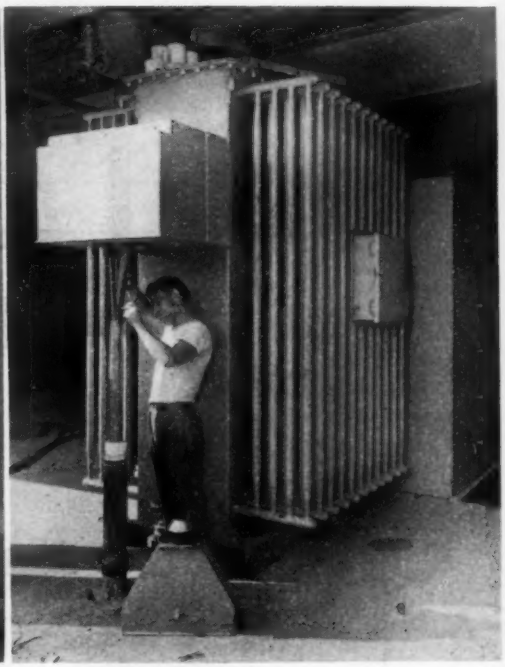


Wholesalers' salesmen can further the war effort profitably by informing customers of these five methods for conserving tons of vital copper in war-plant electric systems

By D. E. Craig*





ABOVE—Busway installation showing how power is available at practically any point through the conveniently spaced outlets.

RIGHT—Low voltage cables being attached to switchgear compartment of substation.

EXTREME RIGHT—Workman connecting high voltage cable to substation transformer.
(Photos from General Electric Co.)

ondary voltage down from 440 or 480 volts to 240 or 280 volts for lighting service.

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Cable and standard types of raceways, or metal-enclosed bus way, will be needed in quantities for providing power at any point where it is needed.

To support the claims made for these copper conservation principles, here are a few examples of the savings made possible by installing load-center systems in recently constructed war plants:

More than nine miles, to be exact 51,000 feet, of large-size copper cable was saved by a recent installation of one 1500-kva unit substation at an Eastern war plant.

In one load area at the plant 1500 kva was needed at 480 volts, three-phase. For the best spot-load distribution in the area, six feeders were required. This necessitated two 500,000-cm cables per phase for five of the feeders, and one 500,000-cm cable for the other feeder, or a total of thirty-three 500,000-cm cables for the six feeders.

Distance from the center of the load area to its power station was about 1700 feet. The unit sub-station was installed at the load center, and only three high-voltage 500,000-cm cables were run back to the power station. This required only 5100 feet of cable, as compared to the 56,000 feet that would have been needed if the thirty-three 500,000-cm cables had been extended from the load area to the power station.

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In a manufacturing plant, 6,000-kva load, eight tons were saved.

In two large ship yards, each with a load of several thousand kva, a total of 245 tons were saved.

Two hundred fifty-eight tons of this vital metal released for other war uses in the case of these four projects alone!

The figures speak for themselves.

* *General Electric Company, Schenectady, N. Y.*

Show Your Customers These 5 Ways To Conserve Copper

WPB PRESS RELEASE 10/64—"In spite of the fact that the United States has control of approximately two-thirds of the world's copper production, the growing war effort demands all of it, and more. Shortage of shipping from South America is a further hazard to the amount of copper available. Every pound that can be obtained from every source is needed if the war demand is to be met."

OBVIOUSLY stringent conservation of the nation's limited copper supply is vital to the success of the war effort, copper being a critical material highly necessary in the manufacture of (1) shell casings, and (2) cable, bus bars, and other electric equipment. In the electrical field, particularly, opportunities for effective conservation are numerous.

Recent engineering studies indicate that there are five methods of copper conservation that can be applied in designing electric systems for war plants. The application of these methods will materially reduce the amount of copper for any given electric distribution system without decreasing the efficiency or reliability of the system in any way.

Briefly, the five steps—whose effectiveness has been amply proved by a number of installations so laid out and now in successful operation—are as follows:

(1) Cover as much distance with high-voltage circuits and as little with low-voltage as possible.
(2) Locate sub-stations in the *centers* of load areas.
(3) Use small size sub-stations.
(4) Distribute power at the highest practical voltage.
(5) Use cable with high-temperature insulation.

Savings Per Plant Are Measured in Tons

The application of these five principles results in the conservation of tons of copper per plant. For example, here are representative savings made recently in a new plant 400 feet wide by 700 feet long (not very large in the light of present standards) with a total electrical load of approximately 3000 kva. If, in this case, an old-style distribution system had been used with one large, concentrated sub-station, and long; heavy, low-voltage feeders, 12 tons of copper would have been required.

However, by the new plan of load-center distribution, embodying the five principles of copper conservation, it required only *seven* tons. Thus, a saving of five tons or 42 percent was effective in this single plant! That's enough copper to make about eight thousand 37-mm. shell casings.

Load-center Power Distribution

Load-center power distribution, which automatically embodies practically all of these copper conservation principles, offers the wholesaler's salemen an excellent opportunity to do missionary work helpful to the war effort, paving the way for sales of associated equipment.

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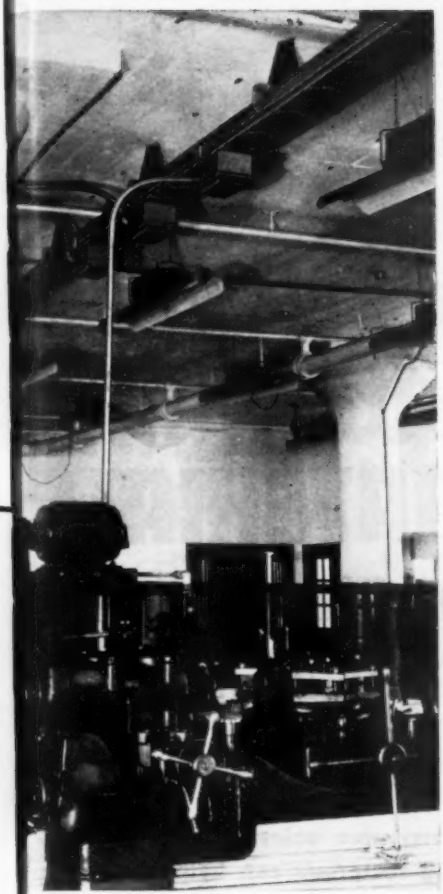

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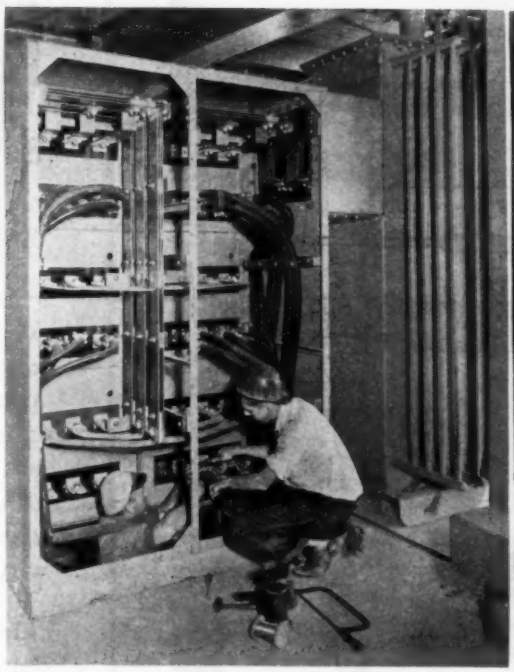

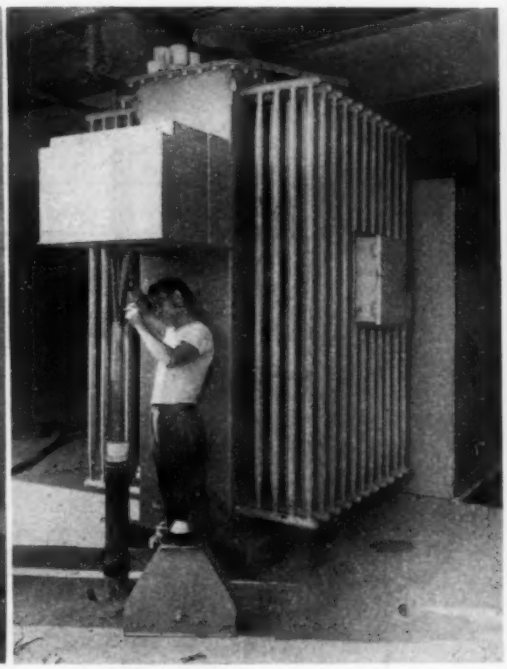

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GENERAL ELECTRIC ... 12 R 600 V ... CODE GRADE ...
ELECTRIC ... 12 RP 600 V ... PERFORMANCE GRADE
ECTRIC ... 12 RH 600 V ... HEAT RESISTANT GRA
RIC ... 12 RW 600 V ... MOISTURE-RESISTANT G
CERTIFIED

General Electric

WIRING MATERIALS

For Maintenance

Help Distributor Salesmen Aid The War Effort

Distributor salesmen selling G-E wiring materials can help customers keep war purpose wiring systems adequate for today's loads. The G-E line is made up of a variety of materials suitable for maintenance work . . . for all sorts of wiring additions and conversion work . . . for new war project wiring systems.

Included in the G-E line are conduits, boxes and fittings, wires and cables, BraidX, bus drop cable, switches, outlets, caps, fuses, fluorescent lamp starters, lampholders, wire connectors, pressure terminals, cutouts, etc. The quality of these materials is high. They will give dependable service. Moreover, they enable distributor salesmen to cooperate with customers in aiding the war effort. General Electric Company, Appliance and Merchandise Department, Bridgeport, Connecticut.

GENERAL ELECTRIC

The Contribution of the Electrical Distributor to the War Effort

By A. H. Nicoll*

MERRYLE Stanley Rukeyser, writing for the International News Service, recently stated "In peacetime, American business provided the public with a magnificent distributive machinery." Donald Nelson, in conversation with Mr. Rukeyser, said "I have a full appreciation of the economic function of distribution; maybe at this stage it would be helpful to the government to bring more wholesalers, jobbers, and distributors into the Federal setup to make sure that the munitions are available where they are needed, at the right time."

Most people, familiar with the many complications of making the thousands of articles of war which we need so urgently, will agree that our greatest problem is to get essential raw materials, parts, and finished goods to the point where they are needed, at the time they are needed. If that is our greatest problem, why not make the fullest possible use of a group of experienced people who have spent their lives doing this very job—a group which can offer warehouses, stocks of goods, and trained personnel to expedite deliveries?

Whether or not a distributor appears in the picture, his functions must be performed. Someone must see that full information and specifications are given to the buyer, that a multiplicity of items are selected, ordered, warehoused, and delivered where and when they are needed. Someone must be responsible for seeing that the items ordered do the job they are intended to do; someone must be responsible for credits and collections.

Most manufacturers realize that they cannot perform these functions as well or as cheaply as can those who have specialized in them for many years. Take the actual case of an electrical manufacturer now operating entirely on war orders doing a volume of about ten million dollars. His policy is to sell entirely through the distributor or wholesaler. If no such distribution channel existed, he would have to set up a chain of warehouses with at least a half a million dollars in warehouse stocks. He would have to build an organization to contact all buyers of his goods. He would have to hire and train credit and collection men. He would have to greatly increase his capital. All of this would seriously hinder and slow down his principal function, that of manufacturing, and would actually cost him far more than the small margin he allows his wholesalers. Then his production would be cut and his costs increased. The electrical distributor, representing 100 or more electrical manufacturers, can obviously do a better job more cheaply than could any one manufacturer.

So much for the fundamental principles of the distributor's functions. What specifically has the Electrical Distributor or Wholesaler done in our war effort? He has performed, as no one else was equipped to perform, in speeding up our war effort both on direct services to government departments and in serving war construction and war manufacturing. He has helped tens of thousands of purchasing men (many of them new to their jobs) select the right electrical items for their purpose. He has helped thousands secure substitute items when some of the items wanted were unavailable. He has helped save days, and even weeks, in getting construction and manufacturing jobs started by prompt deliveries from stock and by

*President, Graybar Electric Co., Inc. Reprinted, with permission, from Dec. 7th issue, "Army and Navy Journal."

1943

FIFTY YEARS

devoted exclusively to the design and manufacture of electrical equipment for circuit protection

★ SHAWMUT IS THE WORD FOR FUSES ★

The Chase-Shawmut Company
Newburyport, Massachusetts

1893

knowing where electrical materials were quickly available and getting them where they were needed, when they were needed.

It is true that various government departments and arms makers are the big buyers today. It is also true that they do not materially differ from other buyers of electrical materials. They must be contacted, information and quotations must be furnished, deliveries must be made, service must be rendered, bills must be sent. All this must be done by people who know their business, people who know electrical materials and their application, who know where thousands of items are made and who makes them, someone who is up to date on prices and deliveries, someone who has a warehouse, a trained office force, ample capital and responsibility. Government departments and war materials plants are located in every part of our country. Who can better serve them than the experienced, responsible electrical wholesaler located right in their vicinity?

Wherever you turn in a study of our war effort to date, you find that the electrical wholesaler has played a part in the remarkable job that has been done. In the early days he helped speed along army cantonments and air fields as well as naval establishments. He has helped in the rapid building of shipyards, airports, and war materials plants. He is now helping in the tremendous job of converting whole industries from peace-time manufacturing to the production of war essentials. He has and will play an increasingly important part in furnishing emergency service on the maintenance supplies, more needed than ever now that industry is on a 168-hour week. All this he has done on a constantly lower margin of profit, which to begin with was less than it could be done for by any other method.

We give you just three examples of badly needed service to the Army, Navy, and war industries—examples which may seem unusual to you but which are occurring hundreds of times every day:

1. A complete telephone system for a distant military base. . . . This war-time order to an electrical distributor covered everything required for erecting, installing, and maintaining the telephone communication—all the switchboard apparatus, instruments, tools, wire and cable. It included dozens of small items—connectors, splicing compound, switchboard lamps, and the like—that come from scores of different manufacturers, yet go together on the job. The electrical distributor's experience helped avoid omission of any small but essential item. The complete shipment was assembled, safely packed, and dispatched on time.

2. Day-to-day delivery from a stock of special lamps. . . . An important builder of naval craft buys large quantities of special lamps for this service. An even flow of these lamps into his yard as the work progresses protects him against delay, while avoiding the storage and inventory problem of taking delivery on huge lots direct from the manufacturer. The electrical wholesaler is always ready with the lamps he needs, even though factory orders take many weeks to fill.

3. "57 varieties" shipped overnight. . . . A fire in this plant seriously crippled the electrical system just at a time when war work brooked no delay. They called the electrical distributor's office for price and delivery information on an order of 57 items at 3:30 one afternoon and at 4:30 received the information. An order with a priority was immediately put through, and *all* the required items arrived in a solid truck load at 10:00 next morning.

Too many people, who do not know the facts, are ready and willing to speak on the subject of the wholesaler's place in the war effort. Above are the facts; each and every one of them can be verified by talking to the men who handle electrical problems for the Army, Navy, and many other government departments, by asking the manufacturers who are producing war goods, and by questioning the architects, electrical engineers, and contractors who plan and install electrical equipment.

Two of a series of advertisements in which a national wholesaling house is telling the nation how vital wholesalers' services are to the country's war effort.

DESTINATION
CENSORED
the autobiography of a war order that was filled on time...via GraybaR
I AM AN ORDER for electrical equipment to make one of America's outposts efficient and alert. I call for 259 different articles . . . 6,039 individual items . . . not just "parts", but a coordinated construction unit, complete with all the installation tools, right down to the soldering paste.
THE THINGS I CALL FOR are made in 31 different locations, in 10 states from Massachusetts to Missouri, yet their mobilization did not await my arrival. Most of them were already at the Graybar local warehouse . . . anticipating just such needs.
PAPER-WORK DIDN'T DELAY ME. Graybar Order Editors knew how to comply with complex priority extensions. They knew where to wire for special items . . . whom to call to expedite matters. Their "follow-up" system really worked.
WAREHOUSING "KNOW-HOW" got me filled on time. From stocks and stock records in "apple-pie" order, specified items were quickly assembled. Nobody mistook PX2338 for PX2383.
SKILLED PACKING helped assure my safe arrival. Hardware . . . lamps . . . delicate instruments . . . all were protectively packed to meet expert requirements. I was at the dock at the specified hour . . . complete!
Your own orders for electrical supplies to increase the efficiency of war plants, get the benefit of those same facilities when they go to one of Graybar's local "mobilization points". Graybar can help you conserve manpower, simplify purchasing, and speed up the delivery of critical needs. Why not make it a policy to take advantage of this "know-how"?
GraybaR
Graybar Building, New York, N.Y.
Everything Electrical . . . THAT IT TAKES TO WIN!
Bringing together more than 200 manufacturers . . . 20,000 customers
"Scraped up" for a 6 p.m. Sailing
A BRITISH FREIGHTER had pulled into an Eastern shipyard for repairs. Its signaling system was badly damaged, and a number of special parts and supplies were needed by sailing time on the following day.
THE GRAYBAR SIGNALING SPECIALIST got the call, and from GRAYBAR'S own warehouse stock filled all of the requirements but one. The last item on the order was for 6-watt, 6-volt lamps . . . an off-standard item which no one in the city had in stock.
ORDER FILES in GRAYBAR'S office gave one final clue: Some weeks before, a research laboratory in a neighboring city had ordered lamps of this special type. Yes, the laboratory reported, they'd be glad to release them for this more essential need.
AS THE HOURS TO SAILING TIME DWINDLED, a GRAYBAR Representative drove to the laboratory and secured the lamps...only to discover that they had all been red-coated, while the ship's order called for lamps that were clear glass.
Your own orders for electrical supplies to increase the efficiency of war plants get the benefit of those same facilities when they go to one of GRAYBAR'S local "mobilization points". GRAYBAR can help you conserve manpower, simplify purchasing, and speed up the delivery of critical needs. Why not take advantage of this "know-how"?
USING A PENKNIFE, as he sat in his car the GRAYBAR man literally "scraped up" the lamps to fill the order as per specifications. The complete order reached the ship in time for the 6 p.m. sailing.
GraybaR
MOBILIZATION POINTS IN OVER 80 CITIES
Everything Electrical . . . THAT IT TAKES TO WIN!
Bringing together more than 200 manufacturers 20,000 customers

The Nugent Plan

Speaking of Post War Selling

Installment Selling for Post-War Delivery—With Priorities

UNUSUAL times, such as we are living in today, are bound to give birth to unusual ideas in connection with the immediate problem of winning the war. However, when the winning of the peace is almost as great a problem, we must expect these times to generate equally unusual, even revolutionary ideas in that direction.

Such an idea is represented by the plan for installment selling for post-war delivery as projected by Rolf Nugent, Director, Credit Policy Office in the Office of Price Administration (OPA).

Basic objective of the plan ties in with one of the most urgent needs of the day, that of organizing and employing every logical and legal means for syphoning off enough of the public's currently high rate of income to avert inflation.

By so doing, it would build up a huge backlog of public buying power that will be available after the war in creating business for the appliance and other consumer-goods industries.

Today the public knows that there are little or no stocks of major electrical appliances and few, if any, small appliances available.

Today also, that same public has more money to spend than ever before within the memory of most people.

Today also, having the wherewith-all to buy, more thousands of men and women are ready to respond to the urge that they have felt for years but could not readily satisfy, namely to buy that long wished for refrigerator, oil burner, washing machine or other major appliance.

Obviously, those thousands will buy or contract to buy, for delivery when and as possible, if they can be assured of

(1) Security for the money that they would be paying in advance.

(2) Freedom to select whichever make or model they prefer.

(3) Freedom to buy where and when they please.

(4) Assurance of some definite advantages that will compensate them for doing advance buying.

The Nugent plan makes highly satisfactory provisions for all those points and provides every possible safeguard for the buyer, with none other than Uncle Sam's United States Treasury holding the money paid in and issuing the Purchase Certificate upon complete payments, —the same as it does when you buy war bonds.

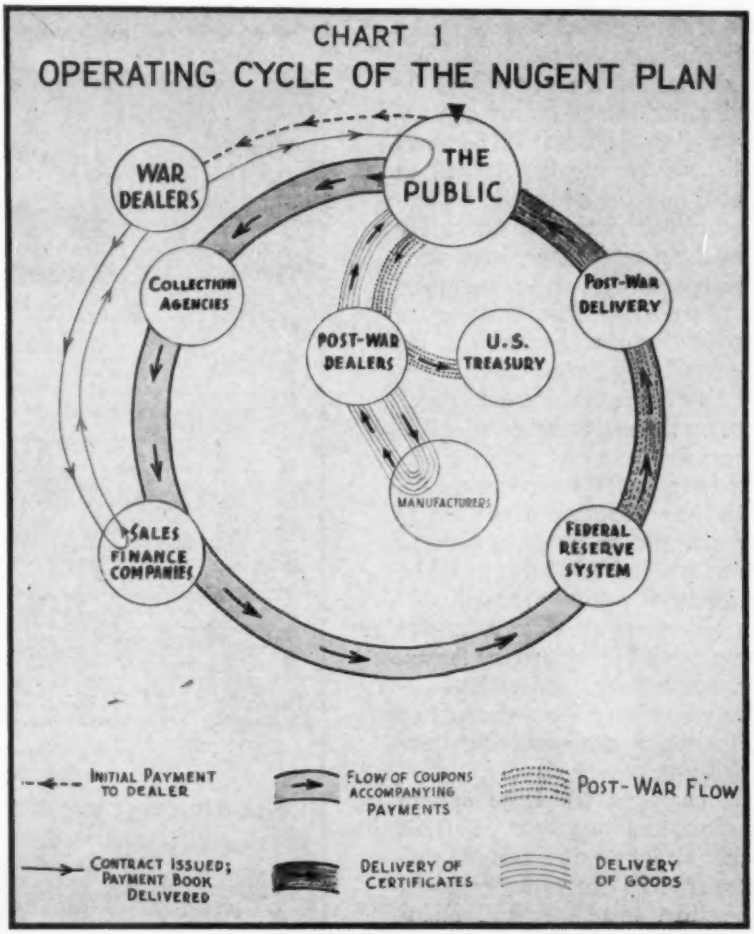
WHY WHOLESALERS MUST BE INTERESTED

Only the electrical wholesalers know all the electrical dealers in any given territory.

Only the electrical wholesalers, as a group, will be organized and ready, when this war is over, to shift quickly, and switch their sales organization to one that can build up retail distribution through dealers for the hundreds of old and new

CHART 1

OPERATING CYCLE OF THE NUGENT PLAN



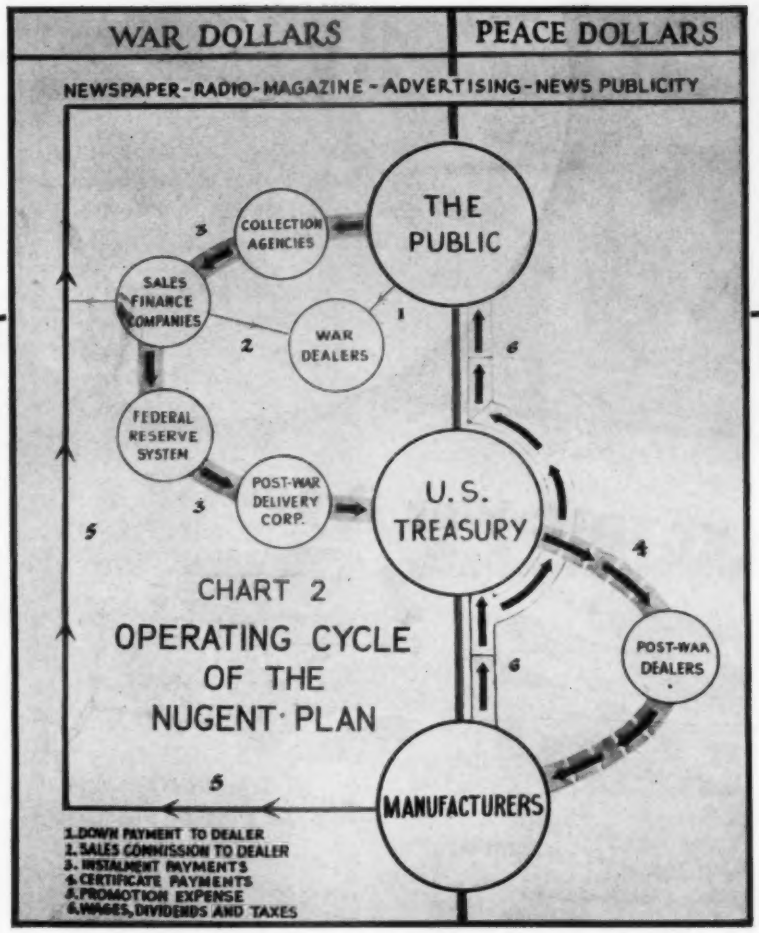


CHART 2

OPERATING CYCLE OF THE NUGENT PLAN

By O. Fred. Rost

manufacturers that will offer electrical appliances for sale.

Only the electrical wholesaler has the opportunity, now, while we are fighting tooth and nail to win this war, to cooperate in planning for that new era of prosperity when the pent-up buying power of the public can be released.

Only the electrical wholesaler has the experience, plant and organization NOW, that is ready to be utilized for providing orderly, efficient and economical channels for wholesale appliances distribution THEN.

The Nugent Plan is just one more vehicle that forward looking wholesalers will use in paving the way for greater usefulness in the post-war era.

To print the full details of this carefully thought-out plan would demand approximately 30 full pages of solid type in WHOLESALER'S SALESMAN,—too much space to devote to a single subject, particularly in these days and with paper supplies being steadily reduced.

Hence we are merely presenting the substance of the plan by recording how a typical transaction would proceed under the Nugent Plan.

We urge that each wholesaler and every salesman study the plan carefully. Then—if you agree that the plan would be helpful: Please be sure to write your Senator and Congressman at Washington a personal letter, telling them why you feel that the Nugent Plan should have their support and ask them to vote for the necessary measures to make it operative.

A TYPICAL TRANSACTION

The essential simplicity of the plan from the standpoint of individual participants can readily be illustrated by following through parts which the buyer, seller, sales finance agency, local collection agency and Federal Reserve Bank would play in a typical transaction.

Let us take, for example, the purchase of a $100 refrigerator certificate from a dealer in Omaha, Neb., during the first month of operation of the plan. The dealer, who has customarily sold his installment sales contracts to the X-Y-Z Credit Company, wishes to continue this relationship. So he uses the application forms of that company, which has previously qualified its nearest branch office with the nearest Federal Reserve Bank. The local collection agencies in Omaha would be the post office, the local offices of the Telephone Company, the Western Union or Postal Telegraph Companies, the local electric light and power company, or the gas company.

The purchaser's part in this transaction is confined to a very few simple steps:

1. He pays $3 down, signs the installment purchase contract for a $100 refrigerator certificate calling for 1 payment of $9 and 11 payments of $8 each; names his beneficiaries; and elects to make payments on the 10th of each month.

2. On the 10th of the following month he makes his first payment of $9 to the local telephone office.

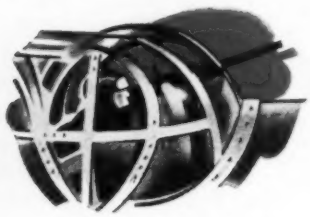
Salesmen, who help in lining up support for this plan among present and prospective dealers in electrical appliances will thereby aid the passage of necessary legislation in Congress and—Whether it is put in operation or fails for lack of support—they will have the right-of-way with those dealers for current and post-war business, because they have shown earnest desire to help those dealers stay in business during the emergency.

SERVING THE ARMED FORCES

"...This award is your nation's tribute to your patriotism and to your great work in backing up our soldiers on the fighting front."

Under Secretary of War

EMERSON-ELECTRIC War Products



POWER-OPERATED AIRPLANE GUN TURRETS

These heavy-caliber fire power, armored turrets protect our Army-Navy Bombers and Torpedo planes against enemy fighter aircraft.

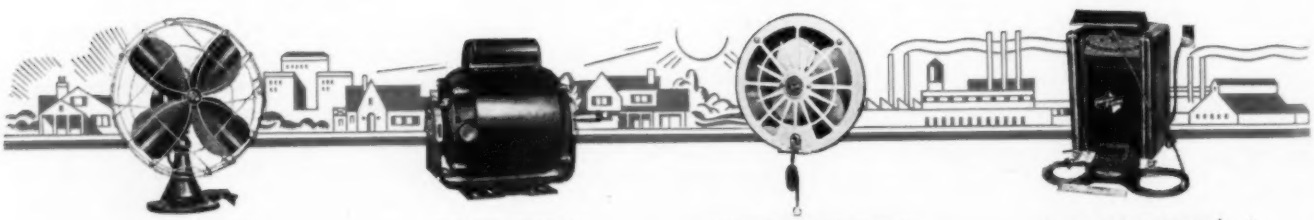
PARTS FOR ARTILLERY AMMUNITION

Precision-built shell bodies and boosters for U. S. Artillery are contributing to the offensive power of our armed forces.

ELECTRIC-MOTOR CONTROLS FOR AIRCRAFT

The fighting power and split-second maneuvering of modern war planes depend upon precision-built electric motor controls.

AFTER VICTORY...Back To The Job Of Serving The Nation



ELECTRIC FANS

The most complete selection of quality Fans in America, with the famous 5-Year Guarantee, inaugurated in 1914.

ELECTRIC MOTORS

For household, farm, commercial and industrial appliances and labor saving machines. . . . Also, for aircraft controls.

VENTILATING EQUIPMENT

Kitchen ventilating and attic cooler fans for homes. Exhaust and ventilating fans for industry and commerce.

A. C. ARC WELDERS

The most modern of metal fabricating methods is made universally available through these compact, portable units.

EMERSON ELECTRIC

THE EMERSON ELECTRIC MANUFACTURING COMPANY, SAINT LOUIS . . . Branches: New York • Detroit • Chicago • Los Angeles • Davenport

bringing with him the payment book which has in the meantime been delivered to him by the dealer.

3. He makes the 11 additional payments each exactly on due date and there are no other charges.

4. If some of the payments were late, soon after the last installment has been paid, he gets a notice from the X-Y-Z Credit Corporation stating the number of payment days that there was delinquency in his account and naming the amount of the charge for delinquency and he is told that delinquency caused a priority deferment of 1. He pays the delinquency charge to the local telephone office on his next pay day.

5. Two weeks later the local dealer delivers to him a paid-up certificate for a refrigerator having a *merchandise* value of $110, a *cash* value at maturity of $100 and an interim withdrawal value of $95. The certificate bears priority number 2. The dealer has him sign the certificate and warns him not to countersign it until he is ready to take delivery of the refrigerator.

6. When the Federal Reserve Board matures the certificate by validating priority number 2 for purchase, the purchaser examines a number of makes and models which the Board lists as being in the price-classes covered by a $100 certificate. Assuming that the make and model selected sells for exactly $110, which is the *merchandise* value of his certificate, he hands it over, orders the refrigerator delivered and the transaction is completed.

THE DEALER'S PART

The dealer's part in such a transaction is primarily one of explaining the plan to the prospective purchaser and inducing him to enter a post-war-delivery installment contract. He collects and keeps the $3 down-payment as a sales commission. If the purchaser should show inclination to default, the dealer would be expected to attempt to resell him on the desirability of completing his contract. When the installment contract has been completed or at specified intervals, the dealer would receive an additional sales commission on the sale of the certificate itself. In addition he will of course collect his gross profit on the refrigerator, if he succeeds in making the final sale.

The dealer also performs a number of relatively minor ministerial acts. He assists the purchaser in filling in his contract and forwards a copy to X-Y-Z Credit Company. When the payment book is received, he delivers it to the purchaser and explains its use. And when the paid-up certificate is received, he delivers it to the purchaser and explains the purchaser's rights and privileges under it.

Thus this plan not only provides for some war-time compensation to the dealer but also gives him legitimate reasons for contacting the buyer with accompanying opportunities for building future sales and good-will.

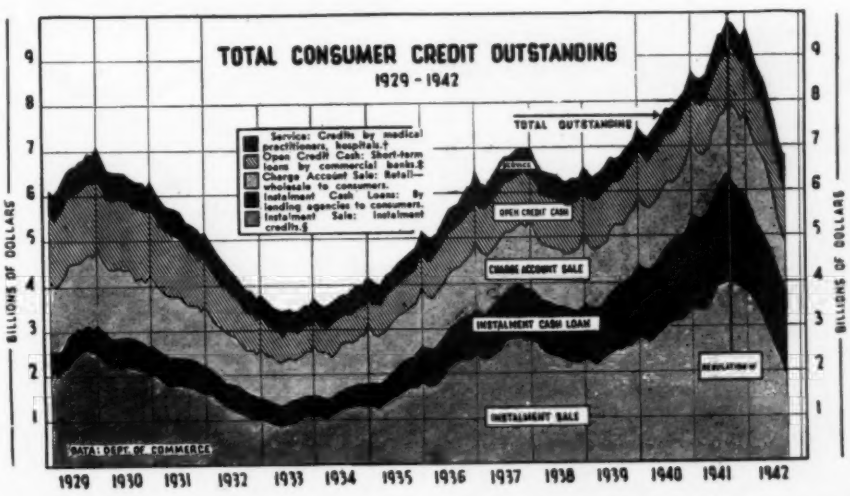
HANDLING COLLECTIONS

The part of the local telephone company office or other collection agency in this transaction is purely mechanical. It has no interest in the identity or performance of the purchaser. Its function is solely to accept the monthly payments with their identifying coupons and to transmit money and coupons to the X-Y-Z Credit Company. It receives a very small fee on each collection as compensation for this service.

The X-Y-Z Credit Company must do a number of things before it is ready to handle these transactions. First, it must qualify its offices with the appropriate Federal Reserve Banks by showing that they were engaged in financing installment sales before September 1, 1941, and by meeting the requirements with respect to a bond or escrow securities. Second, it must prepare contract forms based on the Federal Reserve Board's model for distribution to dealers whose collection business it wishes to solicit. Third, it must make arrangements for cash payments with local collection agencies in the communities in which it chooses to solicit dealers' business.

When the contract is received by the X-Y-Z Credit Company's nearest office, it issues a payment book and sends it to the dealer in Omaha for delivery to the purchaser, opens a ledger account for the purchaser, and sends the application to the nearest Federal Reserve Bank. When coupons and payments are received from the telephone company office, it enters the payments in the purchaser's ledger account, and transmits the face value of coupons, less 3 percent, to the Federal Reserve Bank.

The dealer who delivers the refrigerator in the post-war period also plays a part in the transaction. He displays the appliance and delivers it in exchange for the countersigned certificate. He also clips the manufacturer's credit coupon which entitles him to delivery of an additional refrigerator and to a credit of a specified percentage of the retail purchase price of the one delivered.


TOTAL CONSUMER CREDIT OUTSTANDING
1929 - 1942
TOTAL OUTSTANDING
OPEN CREDIT CASH
CHARGE ACCOUNT SALE
INSTALMENT CASH LOAN
INSTALMENT SALE
BILLIONS OF DOLLARS
1929 1930 1931 1932 1933 1934 1935 1936 1937 1938 1939 1940 1941 1942

With the depression, total consumer credit outstanding declined from $7,089,000,000 in December 1929 to a low of $3,451,000,000 in April 1933. It reached a new height at $9,720,000,000 in September 1941. One year later it had declined 1/3 to $6,547,000,000. (Chart courtesy of the Morris Plan Bank Assn.)

SERVING THE ARMED FORCES

"...This award is your nation's tribute to your patriotism and to your great work in backing up our soldiers on the fighting front."

Under Secretary of War

EMERSON-ELECTRIC War Products

POWER-OPERATED AIRPLANE GUN TURRETS

These heavy-caliber fire power, armored turrets protect our Army-Navy Bombers and Torpedo planes against enemy fighter aircraft.

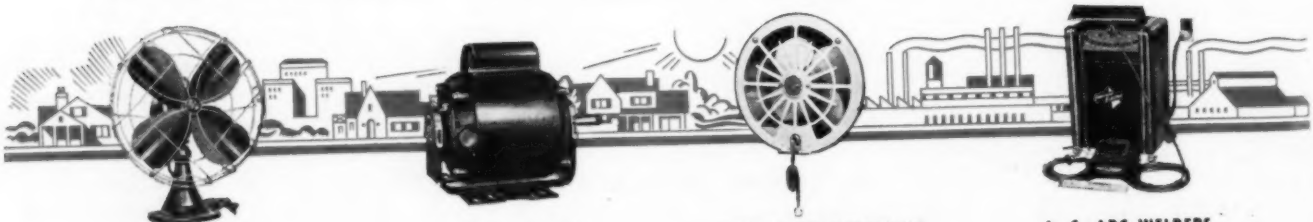
PARTS FOR ARTILLERY AMMUNITION

Precision-built shell bodies and boosters for U. S. Artillery are contributing to the offensive power of our armed forces.

ELECTRIC-MOTOR CONTROLS FOR AIRCRAFT

The fighting power and split-second maneuvering of modern war planes depend upon precision-built electric motor controls.

AFTER VICTORY...Back To The Job Of Serving The Nation



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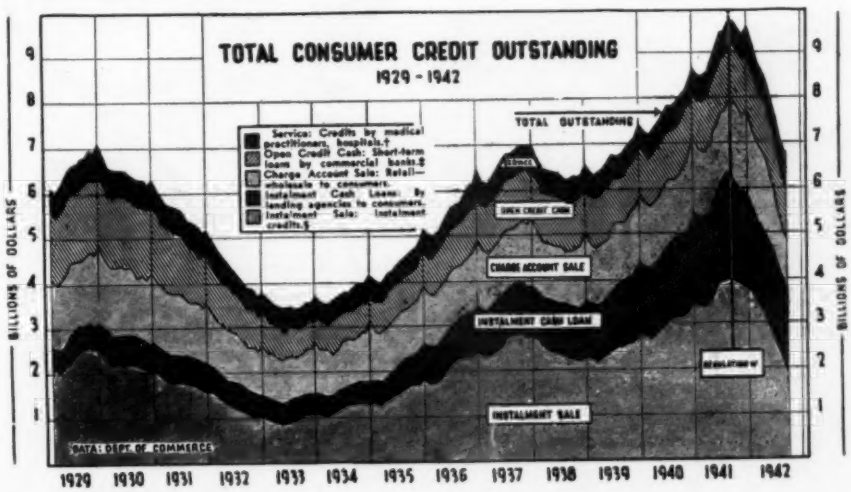
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Speaking of Post War Selling

Sell Electric-Eye Devices For Faster Production, More Safety

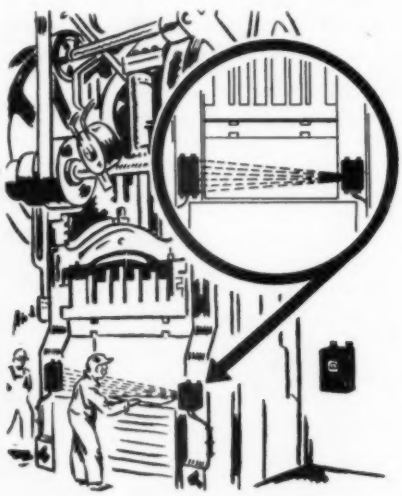
The wholesaler's salesman can sell these packaged photoelectric relay units for hundreds of war production jobs because they save time, increase safety and efficiency. Every industrial plant is a potential buyer

By John Albert Austin

THE wholesaler's salesman who takes on the active promotion of photoelectric relay package units will be making a real contribution to our war effort, while he is opening for himself a wide and important market among his industrial customers.

Everywhere he moves today he will find that there are great possibilities for these so-called "electric-eye" devices for use in protecting the nation's vital war industries, in speeding up many mechanical processes, and in adding a margin of safety for machines and for the country's "soldiers in overalls" who operate them.

Our war industries need these devices and yet, in the rush of other problems that go with all-out production, many plant managers have overlooked the photo-electric relay and, consequently, are not familiar with the many and varied uses that have been found for this comparatively inexpensive but highly versatile device.



How the photoelectric device is placed on dangerous machines to protect operators.

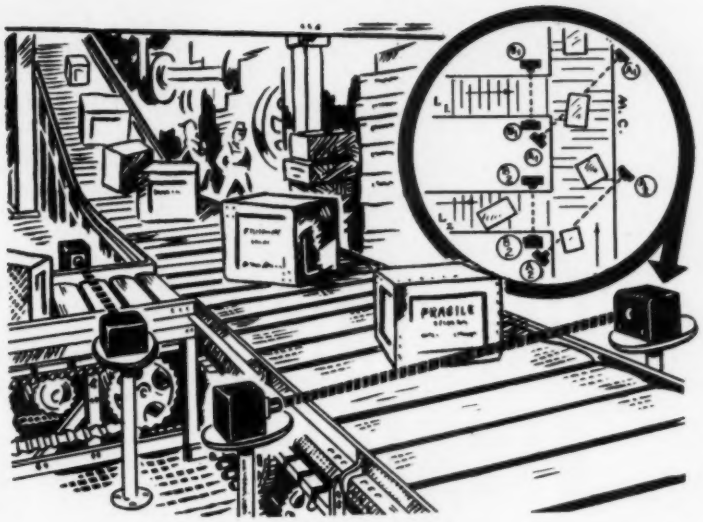
This punch press operator works quickly and safely because a photo-electric beam prevents operation of the press until the operator's hands are out of danger. There is a big market in industry today for the wholesaler's salesman who sells these comparatively inexpensive units.

Since all good selling involves an educational campaign, the wholesaler's salesman of today has a golden opportunity to build future sales by educating industry in the advantages of using photoelectric relays. Best-of-all, is, that to be this educator-salesman, he does not need to be an electronic engineer, in fact he need not even be particularly technical minded. As the operation of the photoelectric relay is very simple, the main thing for the salesman to equip himself with is a knowledge of the possibilities that these devices have in industrial production and protection.

The photoelectric relay is merely a switch that is operated by light.

The typical complete unit consists of a projector, which is just a light source, and a receiver, which contains a phototube, amplifier and relay. The phototube is either a gas-filled or vacuum-filled electronic tube with its cathode coated with a light-sensitive material, usually caesium. This cathode, when exposed to a given intensity of light, is a good conductor of electricity, and in the circuit it has a position relative to that of a closed throw switch. When light is prevented from reaching the tube, the cathode sets up a

A light source and phototube housing, as indicated by arrows, create a safety "fence" for these workers as they cut metal in a large war plant.



Shortage of labor and demands for quick handling of goods in shipping rooms creates a market for these counters.

The first step in what may become a large market for the wholesaler's salesman selling photoelectric devices. This inventor has rigged up a phototube switch which shuts off his night lights when the street light is turned off in a blackout. This may be adapted to factory yard and protective lighting.

resistance to the current and thus acts as if the throw switch had been opened. The exact action of making and breaking the circuit is handled by a sensitive relay that is controlled by the current passing, or not passing, through the cathode. The relay may be made to operate either when presence of light causes the circuit to function or when lack of light causes a resistance to be set up.

The package-unit, of which large quantities can be sold, contains a completely wired and enclosed light projector and a receiver. There are types available for general use where they can be adapted to simple mechanical tasks. Then there are special units designed to handle a particular function which may be common to many industries as, for example, smoke detectors, saboteur-detection systems, door openers, lighting switches, etc.

War Production Market

There are many places in war industry today where war work can be speeded or labor saved through the uses of the simple photoelectric relay package unit. It will be possible here to suggest only a few, but these should encourage the salesman to watch for local applications in the industrial plants he covers.

One basic rule should guide him —wherever he sees a simple single operation being done, he should immediately figure out if that same operation might be done by using a photoelectric relay device. As he becomes more familiar with the wide scope of uses to which the relay unit can be adapted, the salesman will find himself locating more and more local applications that will mean not only more sales but faster and better production for the war effort.

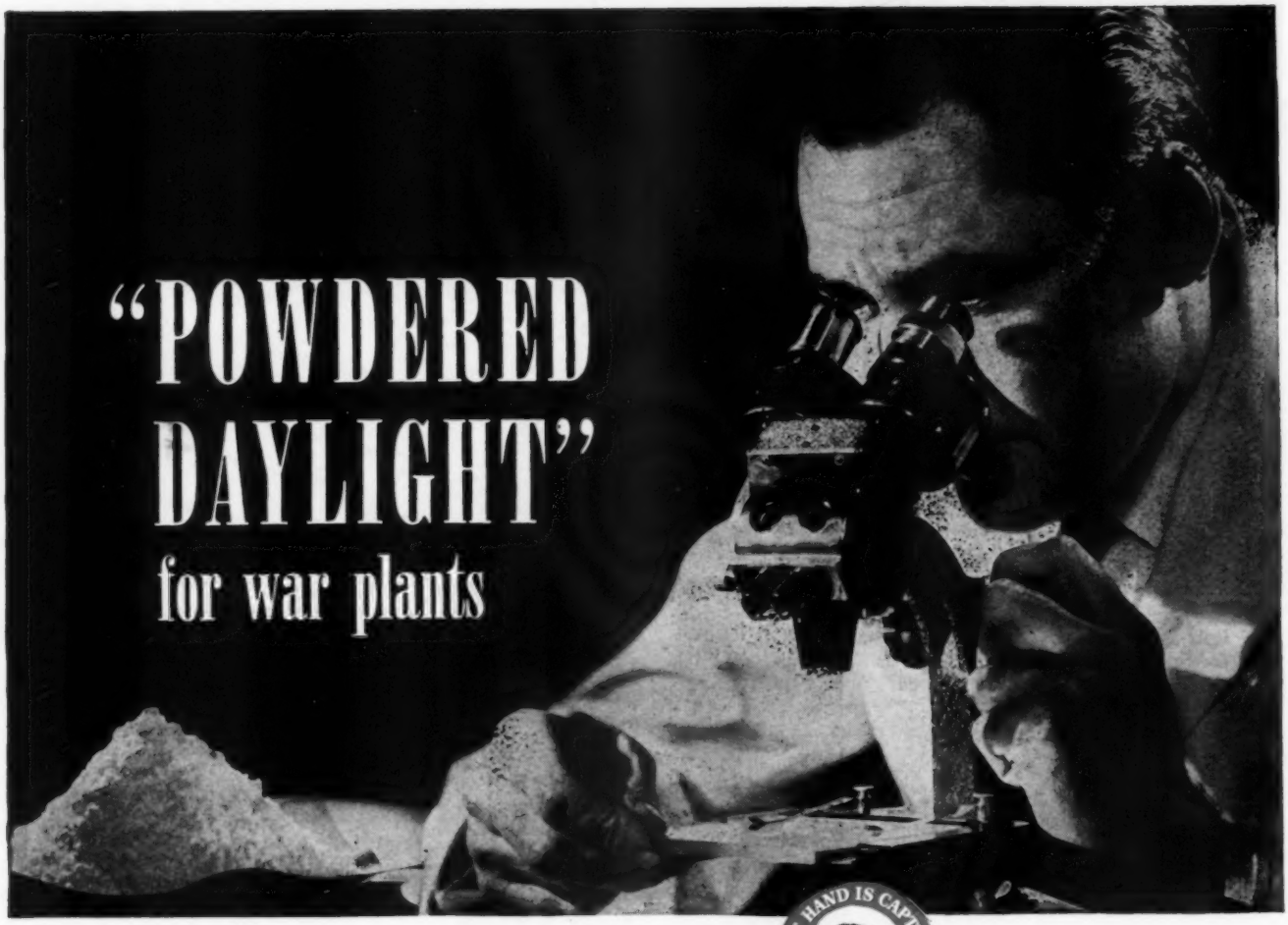
Maybe he will find products or packages being counted on a conveyer line. Put into single file, each unit could count itself by interrupting a light beam as it passed by. The photoelectric relay can operate an electric counter at incredible speeds, far beyond the capacity of any human.

Or maybe in a war production plant the wholesaler's salesman will find hand trucks making frequent entries into rooms or buildings in a situation where the doors cannot be kept open. With a simple photoelectric relay unit in operation, each time the truck approached the door it would break the beam of light and put into operation mechanism which would open the door and hold it open until the truck passed through a beam of light on the other side. There's not much doubt but that the time saved by not stopping trucks and drivers would soon pay the complete cost of this simple installation.

As a Safety Device

And the salesman will find that he has a large market for the use of photoelectric relay units as safety devices, for they have many adaptations in this field. The nation's all-out war effort cannot afford to lose man-hours of production because of a v o i d a b l e accidents. Yet the speed-up of production multiplies the chances for accidents unless additional safeguards are installed.

Every wholesaler's salesman can make an important contribution to the war effort by seeing that the management of war production



"POWDERED DAYLIGHT" for war plants

● A vital chemical of war is "powdered daylight" – fluorescent powder that makes cool, glare-free, shadowless light to speed production in plants throughout America.

Complex compounds called phosphors are pulverized, refined and milled to the fineness of face powder. Precisely blended and mixed with binders to assure even coating, phosphor crystals are *fixed* inside the glass tube by high-temperature baking. There, in very low-pressure argon gas and mercury vapor, the "Black Light" magic of ultra-violet rays transforms phosphor energy into visible light more constant than daylight – and just as kind to the human eye.

THE HAND IS CAPTIVE TO THE EYE

More than ten years of independent research have made coatings with smoother textures a unique feature of Sylvania Fluorescent Lamps. They have also brought other points of Sylvania Lamp superiority: uniform colors, higher light output and longer life – at progressively lower costs.*

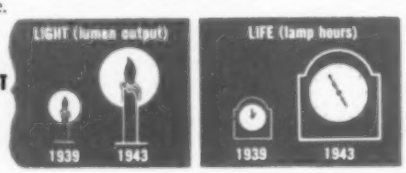
Improvements take place every week at Sylvania. Many of them, like the "Mercury Bomb," conserve strategic materials and labor, and at the same time improve quality. All of them serve fluorescent progress, which is aggressively aimed toward ultimate home illumination when Victory is won.

While today's Sylvania Fluorescent Lamps are serving three-shift days in America's war plants, tomorrow's are being made even better. Make a business asset out of the lamp improvements developed by this constant research. Make permanent customers by selling Sylvania Fluorescent Lamps for replacements and for change-overs.

SELL SYLVANIA AND GIVE YOUR CUSTOMERS FAR MORE LIGHT AND LIFE FOR THEIR MONEY

*Compared with 1939 a dollar invested today in Sylvania Fluorescent Lamps buys more than four times the lumen output and approximately five times the lamp life.

SYLVANIA FLUORESCENT DOLLAR BUYS:



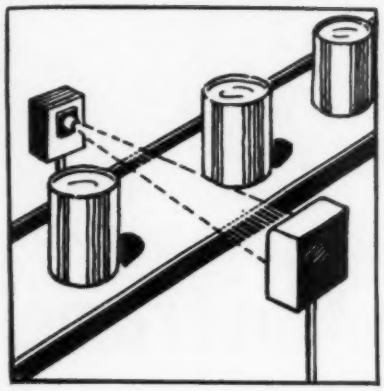
(Based on decreasing price and increasing efficiency and durability of Sylvania 40-Watt White Fluorescent Lamp)

SYLVANIA

ELECTRIC PRODUCTS INC.

formerly Hygrade Sylvania Corporation
Salem, Mass.

Incandescent Lamps, Fluorescent Lamps, Fixtures and Accessories, Radio Tubes, Electronic Devices.



Simple photoelectric counting devices have many uses in industry today.

plants in his territory becomes familiar with every possible method of using photoelectric relay units as safety devices. In doing so he will not only build good will and more business, but he will be cooperating wholeheartedly with the current government-sponsored safety drive.

Here are two examples of how the average package unit may be applied to do a specific job as a safety device.

Properly installed in front of a dangerous area the electric-eye can sound an alarm, shut off power, or otherwise prevent injury to an unknowing or careless worker.

A photoelectric relay unit, connected with the off-on switch, can prevent operation of such hazardous machines as punch presses, die stampers, etc., until the operator's hands are out of the danger zone.

Other Sales Possibilities

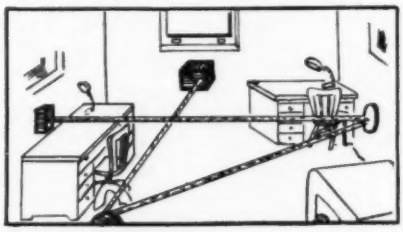
For many years photoelectric relay controlled lighting switches have been used to turn on airport boundary lights and intermediate beacons at dusk and turn them off again when the first strong light of dawn actuated the phototube. Today this same arrangement of the photoelectric relay has several related uses which the wholesaler's salesman can promote among his warplant customers. The same simple device will control protective floodlighting and make it completely independent of manual operation. It can also be used to turn on supplementary lighting when the footcandle level in an area drops below a prescribed level.

One manufacturer has made available a package unit which is based on a customer's adaptation of the "electric-eye" for remote control of lighting circuits during blackouts. This receiver unit is focused on a street lamp and the relay wired to operate a throw-switch in the lighting circuit. When the street lamp goes out the lack of light on the cathode of the phototube activates the relay and through it turns out the lights. Although originated to turn out the night-light in a retail store it can be sold by wholesalers' salesmen to war plants for many other related uses. As a lighting switch controlled by the light of city-operated street lamps (which are among the first lights turned out in a blackout) it could easily operate protective floodlighting systems, remote yard lighting, etc., and turn on the company air raid warning system.

Saboteur Detection System

Selling the photoelectric relay for installation as an effective saboteur detecting device for war production plants has built volume for many salesmen during the past two years, and there is still a large market to explore. Not only those hundreds of factories now being converted are logical customers, but also those thousands of still unprotected plants that are already making material for war.

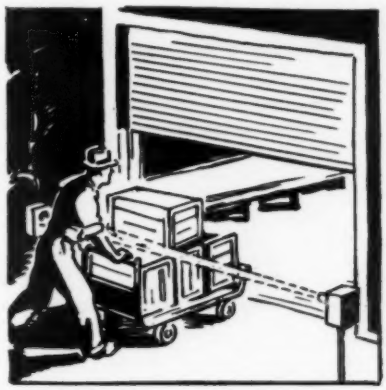
Two general types of photoelectric protection devices are available for this purpose. One is a simple but effective unit suitable for most applications. The other is more complicated, more costly, but a must under certain conditions which the salesman will recognize easily.



This photoelectric "watchman" will protect valuable plans and records.

The first is the static-beam photoelectric alarm. This is the well-known application where a projector and a receiver set up a "fence" of light which, when interrupted by an intruder sets off an alarm or otherwise notifies the proper authorities. By using mirrors a beam may be made to criss-cross or surround an area. As commonly adjusted at their least sensitive point, these devices actuate the alarm when a cylindrical object not more than 6 inches in diameter travels through the beam at a speed not more than 6 miles per hour. To control extraneous light and to prevent tampering, the phototube is usually hooded.

A second type known as the modulated beam type is used in locations where fog or smoke may get into the beam and reduce the intensity of the light sufficiently to operate the alarm. This system depends on the presence of light of a definite frequency. The light beam is broken up by a perforated whirling disc operated by a small synchronous motor and regulated to interrupt the light somewhere between 500 and 1500 times a second.



Not only labor, but heat is saved by automatic door opening and closing.

As long as some of this modulated light strikes the phototube in the receiver, the circuit is not broken. Extraneous light, fog, smoke, etc., which might raise or lower the intensity of the light hitting the phototube do not set off the alarm. Only a complete stoppage of the modulated beam will actuate the relay which sounds the alarm.

The wholesaler's salesman should have little difficulty in deciding on which type to recommend, once he has surveyed the location where installation is to be made.

Illustrations for this story were supplied through the courtesy of General Electric Co., Westinghouse Electric & Manufacturing Co., Photobell Corp., and Worner Products Corp.

Speaking of Wholesalers. . . .

What Some Government O

By Corrie Cloyes*

WHOLESALERS face a 7 percent decrease in sales during the first half of 1943 over the same period in 1942.

This prediction was made by Louis J. Paradiso, Department of Commerce economic analyst, when he testified recently before the Senate Small Business Committee.

"In fact," explained Mr. Paradiso, "wholesalers in the long run are not in as favorable position with respect to maintaining their sales as retailers.

"Since March of this year, wholesale inventories have been liquidated at the rate of $100 million per month. Sales of irreplaceable durable goods have been the chief reason for the decline.

Reduced Sales in Offing

"Retail inventories on the other hand are still close to the peaks reached in the first half of this year. While retail stocks over the past year have been abnormal in relation to their sales, wholesale stocks have not moved so far out of line. Thus, depletion of these inventories will soon be reflected in reduced sales."

There are 200,000 wholesalers in the United States who find themselves "out on this shaking limb" of declining business. Causes for their condition obviously stem from our national concentration on the war effort.

As distributors of civilian goods from the manufacturers to the retailers, wholesalers have already felt the effects of declining supplies. And with more and more industrial plants being converted to war production, the plight of the wholesaler grows more serious. Like his brother in the distributive trades, the retailer, "he just can't convert."

Extent of Expected Decline

The extent of expected decline in industrial products that wholesalers would normally distribute for civilian use is clearly indicated by the accompanying chart. Here is pictured the quantity of goods to be produced for civilian and war use for a selected group of industries for the fiscal year 1943 (July 1942 to June 1943). This quantity is compared with production achieved during the calendar year 1941.

In 1941, for instance, about 65 percent of all steel output was for civilian use. In this fiscal year 1943, only 10 percent will be used for this purpose. Total lumber production is expected to decline about 7 percent over this period. War construction and orders limiting residential construction in fiscal 1943 will leave about 20 percent of 1941 lumber output for civilian use. Most of the nondurable goods industries shown on the chart will produce less for wholesalers to distribute this coming fiscal year.

Commerce Seeks Relief Measures

Gloomy as this picture is, the government is making a determined effort to find ways and means of solving the distributors' problems as much as possible. As a liaison between business and government, the Department of Commerce has not only painstakingly surveyed the present and future state of the distributive trades, but it has also studied possible relief measures.

Charles C. Fichtner, chief of the Department's Division of Regional Economy testified to the special Senate committee:

"The first recommendation the Department of Commerce wishes to make to this committee is the establishment of a program aimed at operating cost reduction in the distributive trades to assist retailers and wholesalers to survive during the war crisis."

In recommending such a program emphasis was made that it should be practical. It was suggested that a study of progressive and profitable operating methods used by successful firms should be made. These methods could be adopted by the smaller distributors.

Two Specific Wastes

Pointing out that from 50 cents to 60 cents of every consumer's dollar goes to pay the costs of distribution, Mr. Fichtner classified the wastes in this sum as follows: (1) Inefficiency of the individual firm; (2) inefficiencies arising from inter-firm competition.

"The inefficiency of the firm may be caused by improper methods or by unwise policies," he said. "The inefficiency of inter-firm competition can be eliminated only when competitors join together to delete those sales frills that should logically be dropped during wartime when there is so widespread a shortage of merchandise."

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* *From "Domestic Commerce," U. S. Dept. of Commerce.*

Officials Have to Say

An example of efficiency studies by the case system is the Department of Commerce publication, "Effective Grocery Wholesaling." Similar studies were suggested for other lines of business.

The need for managerial counsel for smaller distributors was also stressed. While this is being supplied in a small way through personal contacts by the commercial agents of the Department of Commerce, a thoroughly effective service would require a larger field personnel.

Voluntary Withdrawal Plan

Walter F. Crowder, Chief of the Department's Business Structure and Operations Unit, suggested to the Senate Committee that it explore the possibility of giving government assistance on voluntary withdrawals of distributors. He also pictured the likelihood of new enterprises appearing on the distributive scene unless preventive action is taken. He strongly advised limiting the entry of any such new concerns.

In discussing the pros and cons on concentration of smaller distribution units in a few nuclear concerns, Mr. Crowder declared:

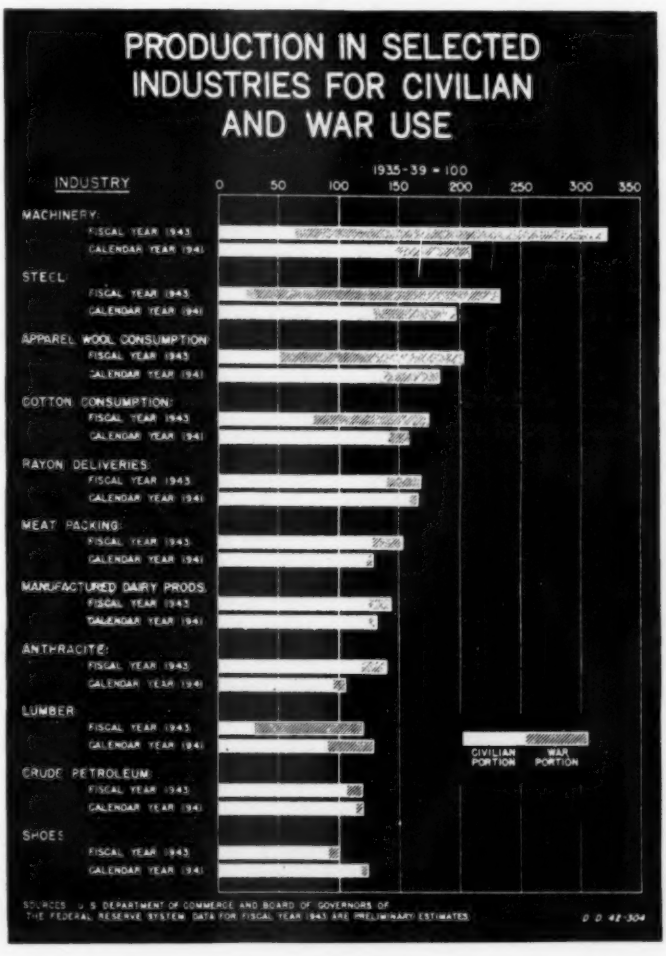
"The problem as far as national well-being is concerned is one of insuring that scarce supplies are distributed fairly to individuals in all geographic areas. Consumers, wherever they reside, should have equal access to scarce goods. Furthermore, from a national point of view, it is important to plan now for the world after the war."

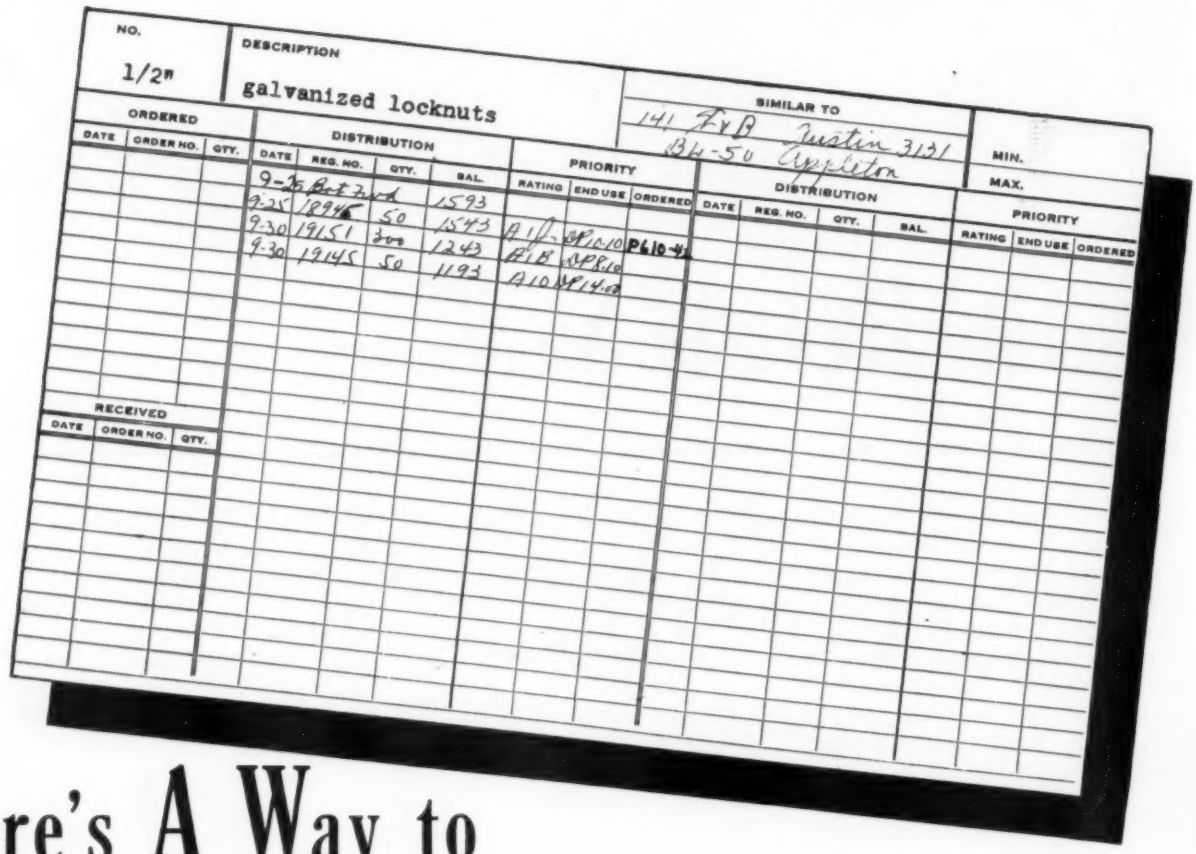
Subsidies Is Alternative

As to the "squeeze" caused by dwindling stocks and price ceilings, only partial relief can be expected by cutting out excessive services and wasteful practices in distribution. An alternative deserving study, according to Mr. Crowder, is—subsidies.

"Obviously, there will be a continuing need for performing the minimum functions in wholesaling and retailing. The goods available for civilian consumption, limited though they are, must still be distributed. Food, wearing apparel, shoes, drugs, household supplies, hardware, furniture, gasoline, fuel, etc., must continue to flow from factories to consumers.

"Should it become necessary as the pressures become acute to subsidize distributors in order that they may perform these essential functions, that action should be viewed as part of the war effort."





Here's A Way to Simplify Priorities Records

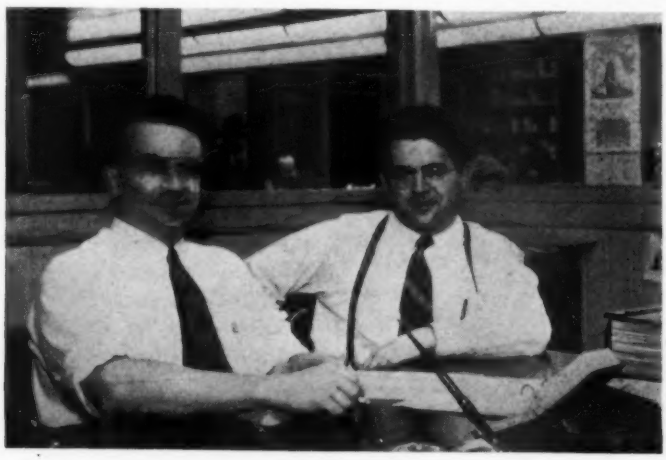
Wholesaler's records can be designed to make the job easier

FORMULA for an aspirin tablet which may not cure the headaches that wholesalers' office staffs have with priorities records but will at least lessen the pain, is the inventory card worked out by J. P. White, purchasing agent of the North Coast Electric Company, located in Portland, Oregon.

As is evident from the typical card reproduced here, another column has been added that is devoted to "Priorities". This is divided into three columns to carry "Rating," "End Use", and "Ordered."

By using this type of record, the problem of accumulation of priorities is much simplified. Before the system was installed, it was necessary to go over all the regular orders periodically when time permitted and then break down every order to ascertain the accumulated priorities. Now all that is necessary is to run through the inventory cards and compile the records from them, a much simpler matter.

The system also makes it possible to trace back on extensions whenever that becomes necessary, since it contains the wholesaler's own registered number, which includes the customer order number. For instance, on the card shown, under "Ordered," P 610 is the order number, and 42 the year.



Two men who come closest to priorities and inventory problems at North Coast Electric are J. P. White, purchasing agent (left) and assistant, R. O. Brown.

HERE'S SOMETHING NEW! Something every electrical contractor and maintenance man should know about. Synthetic Insulated Wire and Cable—produced by Walker of Conshohocken!

The new insulation has many desirable properties. It is tough, flexible and long-aging. It is heat resistant and fire resistant. And—best of all!—it is unaffected by oils, alkalies, acids and moisture!

Walker "Synthetic" may be had in all standard colors—black, white, red, blue, yellow, green—and in other colors on request. What's more—these colors won't scuff off! Sizes range from small diameter building and control wires up to large circular mil. cables.

Write for the sample card which explains features and lists suggestions for use. Walker Brothers, Conshohocken, Pa.

Note—Current WPB regulations on priorities for copper wire apply also to Walker "Synthetic".

WALKER of Conshohocken

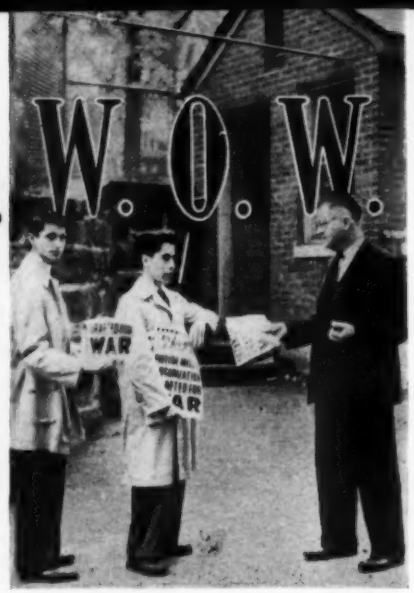
Manufacturers of: UNDERFLOOR DISTRIBUTION SYSTEMS; RIGID STEEL, FLEXIBLE AND THIN-WALL CONDUITS, RUBBER, RUBBER AND LEAD, AND SYNTHETIC WIRES AND CABLES; SERVICE ENTRANCE AND NON-METALLIC CABLES

The CAMERA CLICKS
as a manufacturer declares . . .

IT foreshadows a sad day for Hitler, Hirohito & Co., when America's War On Waste can enlist in a single plant an army of such effective workers as that at The Miller Company, Meriden, Conn., manufacturers of lighting fixtures.

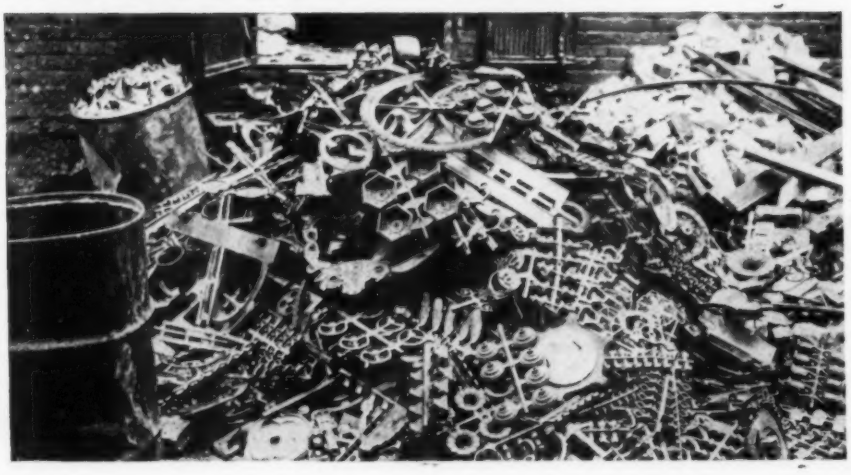
In cooperation with the Conservation Division of WPB, the employees and management of this company are waging a private war with the Axis. Not only are the immediate enemies those uncollected quantities of scrap metal, rubber, tape and twine, but also carelessness and inefficiency.

In spite of the extensive promotion, the drive is costing only $250 to $300, much less than is being returned in the value of the scrap.



The Miller scrap drive was started with "teaser" WOW signs stencilled throughout the factory, in yards, and on roadways (left). Three days later, the "tease" exploded with the distribution at factory gates of a tabloid newspaper announcing the enlistment of all Miller employees in the War on Waste (above). To simplify collection, a scrap bin was located in the factory yard. Separate containers are available for rubber, twine, tin (center, left).

In the first week, The Miller Company's War On Waste turned in 77,416 pounds of scrap iron and steel,



14,625 pounds of brass, and 18,935 pounds of scrap paper. A goal of 1,500,000 pounds was set for end of December, and expected to be reached by October 15th. Above are old or damaged troffers and reflectors added to the scrap pile, and at bottom of page is shown a real pile of scrap—metal odds and ends that will return in another form to help fight the Axis.

Salesmanship + Diplomacy = a Master Solution

THAT'S not the title of this address, as delivered by A. J. McGivern, Managing Director of the Chicago Electrical Wholesaler's Association at the Priority Meeting of Midwestern Electrical Wholesalers at Chicago, January 13, 1943, but—it should have been.

The Editor

PRIORITY Order L-225 restricting the sale and use of conduit and other metallic raceways has many complications. Let me say first, that a solution has been found. Let's consider the problems with which we are faced. The limitation on the wholesaler simply provides that no sales of this material may be made at anything lower than an A-1-j priority. The wholesaler's direct obligation is clearly defined. However, the ruling states that no one-half to two inch rigid conduit may be installed on any job that does not rate an A-1-j priority and only on jobs that are determined to be Class I, II, III, or IV hazardous locations as defined by the National Electric Code. Our City Electric Code provides that practically all wiring installations in factory buildings shall be a conduit job.

Here we have a direct conflict between the regulations of our Electrical Inspection Department and federal priority rulings. Our city ordinances which refer to protection of life and property take precedence over federal rulings. All of this creates a complex problem, and a wrong interpretation might mean heavy fines and imprisonment.

Now one of the functions of the electrical wholesaler which causes him to be an essential factor in our war program is the service which his technical men render in providing information regarding War Production Board rulings to all concerns who are engaged in war time construction. Consequently, the wholesaler cannot avoid responsibilities in this situation.

In attempting to unscramble this mess, I leaned very heavily on two of my old friends. The best authority that we have on the National Electric Code is Vic Tousley. I talked with him regarding the Code provisions that are in regulation L-225. These facts may help you:

Class I hazardous locations are those where inflammable or explosive gases or liquids are present. Examples would be; gasoline filling stations, oil rectifying plants, dry cleaning establishments, shops in which paint is sprayed, and places where explosive chemicals are exposed.

Class II locations are those where explosive dust might be present, such as in flour mills and grain elevators.

Class III locations are such places as textile mills where fibers float in the air and settle on lamps and may be ignited.

Class IV locations are warehouses where fiberous material may be stored, such as cotton warehouses in the South.

There are comparatively few of these hazardous locations in this district.

I had a long conference with Dave Talbott, acting Chief Electrical Inspector, Chicago. We went over the various provisions of this ruling restricting the use of conduit. It places him squarely on the horns of a dilemma for he wants to support everything in the war program, and, yet, the city ordinances restrict his authority to their provisions.

Finally, Dave says, "I think I see a solution for this whole problem. When one of these manufacturing plants wants to do some electrical work, the first step is to ask me for a permit. I will ask 'How are you going to do this work,' and invariably the reply will be, 'I don't know how I can do this job and comply with federal restrictions and the city inspections rules.' Well, I will tell him that our city inspectors have been doing a great deal of work in war factories and these new restrictions provide an opportunity for us to contribute a valuable service to the war production program. I have reserved some of my best men who will assist owners of factories on problems just like yours. Let me send one of these men out to see you. He will make a careful survey of your plant. If he decides that it is a hazardous location as defined by the Code, this decision will be official and final, and he will instruct you to wire your job, not only in conduit, but in accordance with our city rules which apply to such hazardous locations.

"If, however, this inspector decides that a hazardous condition is not present, he will tell you that according to federal restrictions, you will not be permitted to use conduit on the job, and he will assist you to determine the best alternate wiring method to use."

Dave went on to say that if a knob and tube job or something similar were decided upon that he would explain to this owner that such an installation conflicted with the City Code and that he could only give him a temporary permit, good for the duration of the emergency, and that when this emergency is over the permit will have expired and it will then be necessary to rewire the job to comply with the city Electric Code. Of course, the same process would apply on larger conduit, thin wall conduit, metal molding, and flexible conduit the use of which is restricted.

This seems to be a happy solution of a perplexing problem. All guess work is removed, no owner or contractor need fear penalties, and there will be full compliance with the federal restrictions that are in ruling L-225. This plan is in effect right now in the city of Chicago, and we owe a debt of gratitude to Dave Talbott for his clear thinking and patriotic action which has brought about these results.

A. J. McGivern

READ: What this ex-wholesaler's salesman, now in the armed services gives as

ANOTHER REASON FOR WINNING THIS WAR

By William G. Skelton*

IN the average person's mind, now beset with the confusion, heartbreak and hard work of winning a war of the present magnitude, one naturally thinks of saving the world as we now know it.

There has been a lot of agreed discussion as to social changes, class distinction, etc., after this war. However, the world I like to picture, the world that will be saved for the democracies, will be one of tremendous achievements in scientific and engineering skills. I don't think it a foolhardy prediction, that in the centuries to come, it will be the usual thing to live a natural life of *unlimited* years.

Years and years ago, hundreds of men started on the long tedious road of medicine, chemistry and engineering research to give us our present "miracle age," as it is commonly known. Such names as Lister, Pasteur, Curie, Bell, Faraday and Westinghouse, and many others have blazed a glorious path through the halls of fame. Today there are countless thousands living all over the earth with the same ideals these men of science worked to attain and with modern tools with which to do the job.

Just stop and think what we have seen since the beginning of our little chapter in the book of time. This chapter is unfinished and every day we are witnessing new developments.

I don't agree with those "disaster predictors" that we are heading into an inevitable collapse that may last for centuries to come.

God gave us a great advantage in His teachings and in the development-process of the human mind, and I am sure that Christianity will *conquer* the war or disaster elements.

To the human race will be given many more life extending ideas and developments.

We have seen in just recent years radium, antitoxins of many variations, the miracle sulfra-drugs, X-Ray stills and now X-Ray motion pictures.

The vitamin discoveries mark another great stride in modern research. Ultra-violet, infra-red ray, Rentschler-James bacteria-killing lamps, precipitation air cleaning, etc., and many others too numerous to mention have been discovered.

The home, the office, the factory of the near future will embody many of these features. As the expression is "we haven't seen anything yet."

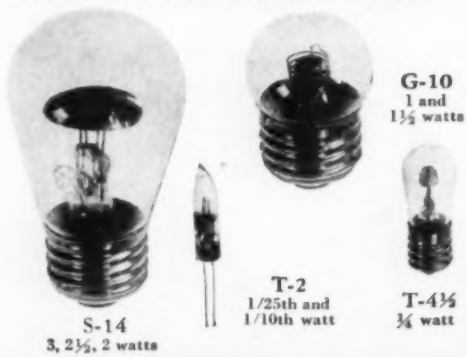
Summing up the past, present and future that has greatest of possibilities, all Christian people should strive and work to *end* this present damnable holocaust.

I think that this is "another" reason for winning this war.

(**William G. Skelton was an outside salesman for the Johnson Electric Supply Company, Cincinnati, Ohio, before joining the Navy. The above article was sent to WHOLESALER'S SALESMAN at the suggestion of Skelton's commanding officer, and was routed through Claude W. Johnson, Jr., of the Johnson company. Petty Officer Skelton's address is now: William G. Skelton, EM 2/C, Co. 1843, U.S.N. T. S., Great Lakes, Ill. The editor.*)

GENERAL ELECTRIC NEON GLOW LAMPS for use as Pilots and Indicators

TYPICAL G-E NEON GLOW LAMPS



GENERAL ELECTRIC Neon Glow Lamps are ideal as pilots and indicators in industrial war plants because they require little power, can operate on standby battery or generator service, and stand up under shock or vibration. They produce a distinctive orange-red light and have a useful life of about 3000 hours.

They are used as pilot lights to show location of switches, sprinkler valves, alarm boxes, emergency doors and exits, and as indicators for fuses and for machines with small quiet motors which may run unnoticed. They may also be used as test lamps for electrical circuits, for synchronizing any two or more moving machines and checking speed. Maybe some vital equipment manufactured by your industrial customers can be made more efficient with the help of glow lamps. For a catalog sheet and full information, write the address below.

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Mining—Number One War Industry

The mineral products of the earth are the prime necessities of war... and peace

THE SURFACE of the earth provided primitive man with the things he needed for his meager existence but civilization really began when he became curious about its interior. This curiosity has brought us a long way. For the earth has yielded — out of its deep recesses — all the raw materials of modern industry. And today, in the grueling race of production, our mining industry is providing the raw materials upon which depends our survival. Our mines and quarries must supply a long list of materials without which a successful war cannot be fought.

Take steel, for example. War without steel is inconceivable. Steel starts with iron ore, limestone and coke. These are products of mines and quarries. It takes power and heat to get these materials out of the ground, to refine them and to transport them to the point where processing begins. All the subsequent operations culminating in the steel ingot, shape or plate, and in moving the final product to the point of use require power and heat.

The major source of this power and heat is coal.

Production of a ton of steel, it has been stated, requires two tons of coal. Smelting of the pig iron alone, 60,000,000 tons in 1942, required the coking of some 75,000,000 tons of coal. Pig output is expected to rise to 68,000,000-70,000,000 tons in 1943, carrying coal consumption up to 85,000,000 tons. At the same time, output of steel ingots is expected to rise from 87,000,000 to 97,000,000 tons. Think what this means in terms of power and heat.

Another vital metal is copper. Modern armies need copper. This point is dramatically illustrated in a recent memorandum by Robert P. Patterson, Under Secretary of War, in announcing the release of 4,000 men from military service to return to the mines and increase copper production. "In a single minute of combat", Mr. Patterson declared, "a flight of 50 fighter planes shoots away 7 tons of copper. A 37-mm. anti-aircraft gun uses up a ton of copper every twenty minutes it is in operation. Six hundred pounds of copper go into every medium tank, and a ton into the engines and airframe of a Flying Fortress. The Signal Corps alone needs 5,000 tons of copper every month for radio and telegraphic and telephonic equipment. An army without copper would be an army without speed, maneuverability or firepower. It would not last a day in battle".

Seven tons of copper for one minute of combat by 50 fighter planes means from 200 to 700 tons of ore, depending upon its grade. Small wonder that the War Department was willing to release drafted miners from military duties to produce more copper.

But other metals are equally important in war: tungsten, nickel, manganese, chromium, vanadium and molybdenum for alloy steels; zinc for brass and die castings; tin for bronze and bearings; aluminum and magnesium for aircraft; lead and mercury for ammunition; silver for electrical equipment, bearings and solder, and so on. Even relatively insignificant non-metallics, like mica and diamonds, suddenly assume critical importance.

And let us not lose sight of the fact that without adequate energy, i.e., heat and power, production, processing, transportation and the relative comforts to which we have become accustomed would be impossible under war conditions. Coal is the major source of energy in the United States. It supplies more than half the total in normal years.

The railroads of the country alone used 110,000,000 tons in 1942 to move freight and passengers and service their facilities. Utilities consumed over 68,000,000 tons in the production of electric power. Over 135,000,000 tons of coal were consumed last year in maintaining the level of heating comfort necessary for the maintenance of efficiency and morale. The consumption, this year, will be even greater.

In short, the mineral products of the earth are the prime necessities of war.

The nations that control the world's mineral resources and make the most efficient use of them will win the victory.

Before the war, the British Empire and the United States together controlled probably 75 per cent of the world's mineral production. This would have been a most potent weapon in the United Nations' arsenal if the whole strategy of Axis expansion had not been influenced by mineral objectives. Addressing the American Zinc Institute on the subject last April, E. W. Pehrson, of the U. S. Bureau of Mines, estimated that the Axis had improved its position in world mineral resources in the following percentages: iron ore, from 6 to 46; steel production capacity, 20 to 34; petroleum, 1 to 7; coal, 27 to 53; copper, 5 to 10; lead, 7 to 22; zinc, 16 to 27; tin, 1 to 72; manganese, 2 to 30; chrome, 3 to 30; tungsten, 6 to 60. In the light metals, areas now Axis-controlled produced in 1940 54 per cent of the world's aluminum, 49 per cent of the bauxite (the principal source of aluminum) and two-thirds of the magnesium.

This is the eighth of a series of editorials appearing monthly in all McGraw-Hill publications, reaching more than one and one-half million readers, and in daily newspapers in New York, Chicago and Washington, D. C. They are dedicated to the purpose of telling the part that each industry is playing in the war effort and of informing the public on the magnificent war-production accomplishments of America's industries.

Despite these gains, the industrial war power of the United Nations still can outweigh that of the Axis by a considerable margin. It already has begun to surpass it. The problem is to convert quickly our potential mineral resources into implements of war. In this conversion, a heavy burden of responsibility has been placed on the mining industry of the United States as the largest producer of many metals, minerals and fuels. In fact, the United States mining industry began to go on a war basis a year before Pearl Harbor. The curves of demand for domestic copper, lead, zinc and other metals began to rise sharply in 1940, and were paralleled by a rising coal production.

How well the job has been done cannot be revealed in accurate figures in many cases because of censorship. In metals, however, some idea of production gains can be indicated in comparative terms. United States copper production, for example, is breaking all previous records. Aluminum capacity will be more than seven times its annual peace-time average. Magnesium plants now building will have a capacity 100 times the largest yearly before-the-war figure. Molybdenum, of which the United States has the largest single mine in the world, is being made available in record quantity. Zinc, lead and mercury are surpassing expectations in meeting wartime demands, and tungsten, chromium, manganese, antimony and iron and steel are being turned out in record-breaking quantities.

Bituminous coal production in 1942 was 580,000,000 tons, the greatest in history, valued at more than $1,300,000,000 at the mine. Some 430,000 or more men were employed in 1942 and received at least $750,000,000 in wages. Bituminous production in 1939 was 394,855,000 tons, while the output for 1943 is forecast at approximately 600,000,000 tons – another new United States record. The 1942 anthracite output was 59,961,000 tons, valued at over $270,000,000 at the mine. The industry employed some 85,000 men and paid out at least $180,000,000 in wages. The 1939 production of anthracite was 51,487,000 tons, and the forecast for 1943 is 65,000,000 tons or more.

Marshalling the Western Hemisphere's mineral resources, the United Nations have been the beneficiaries of the diversified resources of two continents – in particular of Canada's nickel and coal, Mexico's lead and antimony, Chile's copper, Bolivia's tin, Peru's vanadium, Brazil's iron, and Venezuela's petroleum. With other United Nations contributing their share of metals and fuel, the grand total is an impressive array of potential munitions and matériel to lend assurance of certain victory over the Axis. Sheer weight of metal, properly used, will win the war, and our mineral industry will have played an indispensable and essential part in the inevitable outcome.

James H. McGraw, Jr.

President, McGraw-Hill Publishing Company, Inc.

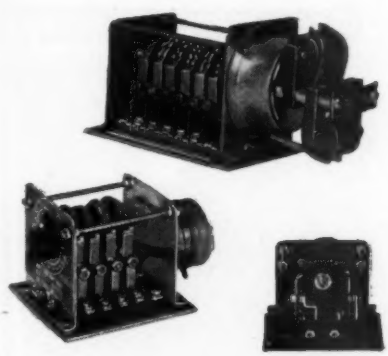
New Products You Can Sell

PANELBOARD

Unit distribution panelboard in drip-proof cabinet with shock-proof fuse clamps, is suitable for marine applications such as for lighting, power, intercommunicating systems and radio. It is available in 6 to 20 circuits. Panel is made of bakelite sections mounted on channel iron rails, service 2/2 wire 125 or 250 volt. The Trumbull Electric Mfg. Co., Plainville, Conn.

When writing mention WHOLESALER'S SALESMAN

TIMERS



Multi-contact timers are designed to control a series of machine operations in definite order, automatically reverses or alternates in operation a group of motors, machines or devices, operates in a predetermined sequence as well as numerous other applications where sequence operations are of prime importance. The R. W. Cramer Co., Inc., Centerbrook, Conn.

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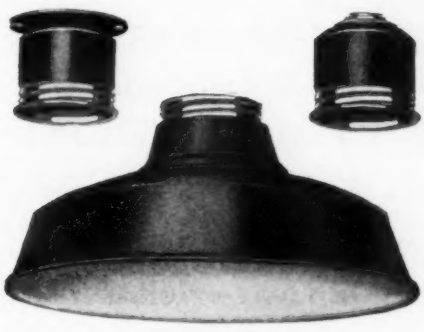
QUAD Lighting Units are scientifically designed to give highest lighting efficiency—basic design and construction features are absolutely correct. They are easy to install, finished job is good looking, they are modern, weatherproof, and give no after worries. You can find the right unit for a given installation, no matter how complicated or unusual, in the QUAD line—the line that *stays* popular.

RLM



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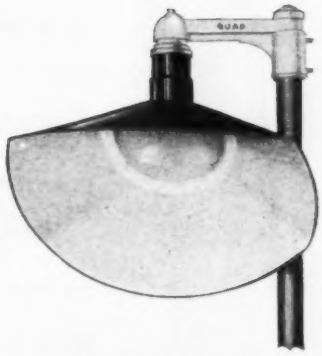
DOME REFLECTOR



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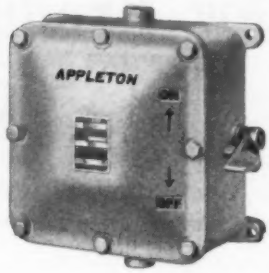
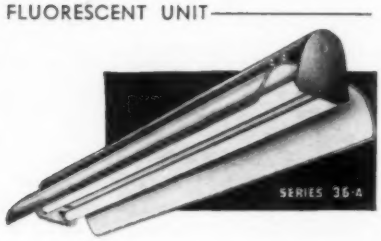


Type FLS explosion-proof and dust-tight unilet has a quick make, and quick break-non-fusible safety switch used for general use and motor circuits. It is primarily a safety unit built in a heavy malleable housing and manually operated. It does not require the interlocking features on the cover and switch handle. Appleton Electric Company, Chicago, Ill.

When writing mention WHOLESALER'S SALESMAN

FLUORESCENT UNIT



Series 36-A industrial non-metallic fluorescent unit is available for two and three 40 watt and two 100 watt lamps. Ballasts, sockets and lamp starters are mounted in housing, leaving reflector free for easy removal for servicing or cleaning. Unit is suitable for surface or suspension mounting. Lighting Products, Inc., Highland Park, Ill.

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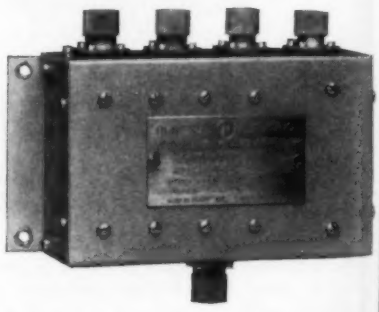
LAMP BALLAST



Enclosed fluorescent-lamp ballast, for use in aircraft, operates four 4-watt lamps. Will operate from a 26-volt, 400-cycle power supply at all frequencies from 385 to 416 cycles. An input-voltage variation of 23.5 volts to 28.5 volts is permissible. General Electric Co., Schenectady, N. Y.

When writing mention WHOLESALER'S SALESMAN

News

(Continued from p. 31)

helped to contribute to the war effort by saving at least 100,000 man-hours annually, an arbitrary figure of time which approximates the manhours required in building one large bomber.

Lamp and Shade Product Production Stopped

Production of portable electric lamps and shades containing critical materials has been halted by WPB order. Restrictions apply to all types, including floor, table and bed lamps.

Production of wire frames was stopped on January 1. Until that time, wire frames for shades made of phenolic plastics, iron or steel which already were in manufacturer's inventories, could be used.

The order exempts lamps and shades produced for the Army, Navy, Maritime and War Shipping Administration, but certain restrictions are placed on use of critical materials for filling such orders.

Joins Raybro Electric

Robert L. Rhodes, formerly assistant sales manager of the electrical division of the American Steel and Wire Company, Cleveland, has joined the staff of Raybro Electric Supplies, Inc., a Tampa, Florida, wholesaling house with branches in Jacksonville, Miami, and St. Petersburg.

E. J. CONNELLY has been appointed vice-president in charge of sales for Hobb Electrical Supply, New York.

Cooperation

Will win the Battle of Production!

Keeping Step!

The vital role played by electrical supply houses in maintaining adequate electrical service is backed by the wholehearted cooperation of equipment manufacturers.

For example, the Oliver organization—production men, engineers and management—provides the ability and the desire to produce the pole line materials your customers need. The line is complete, well designed, carefully made and service-proved. Your customers know the name and high quality of Oliver products.

We're keeping step with you, and with the requirements of your trade.

OLIVER
IRON AND STEEL
Corporation

SOUTH TENTH AND MURIEL STREETS · PITTSBURGH, PENNSYLVANIA

Only 6 Ounces of Steel Per Foot

THE NEW SPERO DUR-O-LITE REFLECTOR AND RACEWAY OF NON-METALLIC MATERIAL

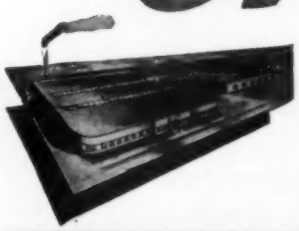
WHAT THIS MEANS TO YOU:

Because this fixture takes 90% less critical steel, you can now keep right on selling fluorescent lights to help speed war production. Besides meeting the requirements of the new limitation order L78, which prohibits steel reflectors, this new unit also eliminates steel from the raceway. Reflector and raceway are made of synthetic resin-bonded plywood—the strongest non-metallic structure—used successfully in airplanes, gliders, PT boats, etc. . . . Designed for industrial installations, Spero DUR-O-LITE meets Bureau of Standards specifications for reflectors. Reflecting surface has high-gloss white enamel finish (reflection factor 88%), exterior surfaces are battleship gray. Available for two or three 40 watt tubes.

This unit may also be equipped with the new Spero development "INSTA-LITE", which provides instantaneous illumination, without flicker or delay. INSTA-LITE eliminates the starter and with it 85% of the trouble of average fluorescents—thus greatly reducing maintenance costs. Lighting starts at lower temperatures and lower voltage—there are no false starts to shorten tube life.

Don't pass up profitable War Plant installations. Get the facts about the new DUR-O-LITE today. SPERO offers you the most modern line of industrial fluorescent and incandescent fixtures . . . Distributed only through electrical wholesalers.

With NEW INSTA-LITE gives you Instant Starting and Instant Lighting with NO starting switch



SPERO ...5 LINES of Products from one dependable source

THE SPERO ELECTRIC CORPORATION
18222 LANKEN AVE. ★ CLEVELAND, OHIO

Office Centralization Helps Wholesaler

Centralizing all offices of the company instead of having them scattered throughout the building has permitted coordination of effort and a saving of valuable time at the Germantown Electric Supply Co., Germantown, Pa., according to a report from Jack Greenberg of that company.

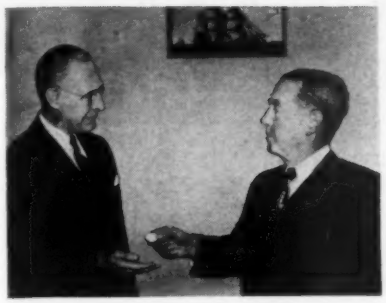
Another change has been the removal of the switchboard from the general offices to the showroom where the operator can see more readily the entrance or exit of key men.

Six members of the staff have left to join the armed forces. Those remaining are cooperating with local war efforts and have been active in the promotion of sales of war bonds and stamps. The company has shared with other concerns the cost of civilian defense posters used in Germantown.

Crouse-Hinds Advances H. L. White

Horace L. White, for some years manager of the Pacific Coast area for Crouse-Hinds Co., has been given the additional responsibility as manager of the entire central district. He will have charge of the territories controlled by both the Chicago and Los Angeles offices.

NEWLY APPOINTED as a Major in the United States Army, Harry A. Brown, is attached to the Services of Supply in Washington. He was formerly president of Jno. E. Graybill & Co., electrical wholesalers in York, Pa.



NEW 25-YEAR CLUB MEMBER at Ilg Electric Ventilating Company, Chicago, is P. D. Briggs, left, who is receiving a gold watch from president John M. Frank.

N. J. MacDonald Heads Conduit Fittings Group

The Conduit Fittings Section of the National Electrical Manufacturers Association has elected N. J. MacDonald, vice-president of Thomas & Betts Co., as chairman of the section for 1943.

In speaking of the section's plans for continuing regular activities, Mr. MacDonald pointed out that government programs which may impose upon the industry additional drastic changes, are underway or contemplated for the immediate future. Further curtailment, discontinuance of the manufacture of these and related products and even the concentration of production may be realities before the year is done, Mr. MacDonald stated.

Chase Brass Elects Hart as President

Charles E. Hart has been elected president of the Chase Brass & Copper Co., Waterbury, Conn., to succeed Frederick S. Chase, who is retiring from active work.

Mr. Hart was elected executive vice-president in 1938 and has been connected with the company since 1924. Mr. Chase has been connected with the Chase interests since his graduation from Yale in 1887. He celebrated his eightieth birthday last July.

New NEWA Address

The National Electrical Wholesalers Association has moved into its new offices at 500 Fifth Ave., New York. This location is Fifth Avenue at 42 Street, which the NEWA announcement proudly states is "the best known corner in the world." The telephone number will be PEnnsylvania 6-9444.

"Take care of those pliers, son"

THE old-timer who knows good tools passes on the word to the "grunt" just learning "Good tools deserve good care." And today, when every tool that can be produced has a job to do licking the Axis, taking care of tools is an aid to winning the war as well as being good business.

Owners of genuine Klein equipment can rely on its high quality to assure maximum service. Proper care means longer life for tools which will be difficult, if not impossible, to replace during wartime.

ASK YOUR SUPPLIER. FOREIGN DISTRIBUTOR: INTERNATIONAL STANDARD ELECTRIC CORP., NEW YORK

Since 1857

Mathias KLEIN & Sons
Established 1857
Chicago, Ill., U.S.A.
3200 BELMONT AVENUE, CHICAGO

THAT THERE SHALL ALWAYS BE LIGHT

On the production front all over the country men are hard at work making guns, planes, ships and tanks. Tools for Victory. And Federalite NTPR panelboards are hard at work, too, giving perfect control and protection of lighting and small power circuits.

Panelboards alone, like any single factor taken by itself, won't win the war. But anything that helps speed up output and improve quality—anything that helps get the job done better and faster—*helps* win the war. That's just what Federalite NTPR panelboards are doing.

These rugged, precision-made Federalite NTPR panelboards are built for service. Steady and dependable, they offer many advantages—switch ahead of every fuse gives higher safety factor . . . floating contacts . . . frictionless snap-action mechanism . . . solderless lugs in mains and branches . . . giant, easy-grip switch handles . . . shallow depth for mounting in thin walls . . . large wiring gutters . . . *low cost.* These are but a few of the reasons why Federalite NTPR panelboards are being installed in greater number today than ever before.

The men who know—the men who supply and install electrical equipment—the electrical wholesalers and contractors with difficult war jobs to tackle . . . industrial conversions . . . army camp, navy base and industrial installations . . . defense housing projects—are switching to Federal.

They know these Federalite NTPR panelboards assure a steady flow of power for lighting and small power circuits and protect the lights by which men work to keep supplies flowing to our fighting fronts. *For complete information about these low cost Federalite panelboards write for catalog 42.*

SAFETY SWITCHES • SWITCHBOARDS
PANELBOARDS • CIRCUIT BREAKERS

Federal

FEDERAL ELECTRIC PRODUCTS COMPANY

52 Paris St., Newark, N. J.

Wesco's W. M. Dick Resigns After 40 Years

Shortly after completing 40 years of service, Walter M. Dick, treasurer of the Westinghouse Electric Supply Co. retired on December 31, 1942.

Mr. Dick had been with Westinghouse since he joined the accounting department of the manufacturing company in 1901. He became traveling auditor in 1907, and chief field auditor in 1915.

He entered the electrical supply business in 1920 when Westinghouse first entered that field. In 1922, when Westinghouse Supply Company was incorporated, Mr. Dick became auditor. He was elected treasurer in 1935.

Mr. Dick was born in 1873 in Ashtabula, Ohio, and received his degree of Bachelor of Science at Oberlin College in 1897. He has been active on the technical advisory committee of the National Electrical Wholesalers Association.

Extensive Conversion At Plymouth Rubber

In a leaflet distributed among its employees, the Plymouth Rubber Company, Canton, Mass., describes the many products that it is now turning out to aid the war effort.

Among these are: sandfly and mosquito coverings for use by the armed forces in the tropics and jungles; flotation bladders which are carried by certain soldiers to use in floating small rafts across streams; special mattress covers; insulating pads for sleeping bags; impermeable cloth to shield men against poisonous gases; all types of insulating tape; stirrup pump hose made of a synthetic; also raincoat fabrics, rubber shoe taps, hospital sheeting, cloth for rain suits; clothing bags and shelter halfs.

The leaflet reprinted a letter from the commanding officer of a quartermaster depot congratulating the management and employees of Plymouth Rubber Company on the "splendid cooperation" shown by them.

GE Orders Total 2 Billion Dollars

Orders received by the General Electric Company during the year 1942 reached the all-time record total of $2,003,039,000, according to an announcement by Gerard Swope, president.

This is an increase of 77 percent over the 1941 total of $1,132,837,000.

George J. Taylor Given Eastern GE Post

George J. Taylor, industrial lighting engineer at GE's Nela Park, has been advanced to the position of wartime lighting engineer at the company's Atlantic Division, New York City. He will work with the many government war production agencies who have been transferred to the New York-Newark area.

During the past two years, Mr. Taylor has travelled more than 150,000 miles throughout the United States, working on industrial lighting problems for war production plants. He figured prominently in the design of lighting installations at the aircraft plants of Curtiss-Wright, Consolidated, Douglas, Pratt and Whitney, and General Motors.

Mr. Taylor's new responsibilities call for contact with consulting engineers, electrical contractors, and factory engineers engaged in the design, construction or alteration of war plants both large and small.

New Brunswick

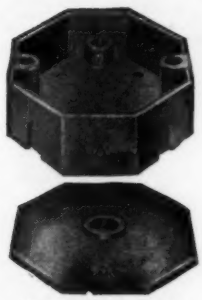
A correspondent of WHOLESALER'S SALESMAN in St. John, New Brunswick, reports that a considerable stock of electrical equipment and supplies was damaged when a fire of undetermined origin burned part of the building occupied by the New Brunswick Power Company.

Norman Marcus, son of Max Marcus, president of J. Marcus Company, St. John, electrical wholesaling house, was home recently on leave from duty with the first special service force of the Canadian Parachute Battalion. He was formerly on the staff of the wholesaling firm before enlisting for parachute training.

YOU CAN GUARANTEE THEM FOR *Longest* SERVICE LIFE••

ILLINOIS COMPLETELY INSULATED

ALL PORCELAIN WIRING SYSTEMS



OUTLET BOXES AND COVERS

For the customer, porcelain protected wiring systems mean permanency of installation, economy, safety, dependable service where dampness and fire hazards are prevalent.

Illinois all porcelain wiring systems are adaptable to practically all wiring plans and layouts—they are easy to install and can be installed without grounding.

Porcelain is not a critical material—use it for your next installations.

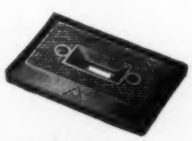
STANDARD TUBES

SWITCH BOXES AND COVERS

★ SAVES VITAL MATERIALS • DO JOBS IN LESS TIME • CUT MAINTENANCE ★

STANDARD KNOBS

CLEATS



TOGGLE SWITCH PLATE

Bull Dog

Look for this Trade Mark

LAMP HOLDERS

ILLINOIS ELECTRIC PORCELAIN CO.

MACOMB, ILLINOIS

Latrobe PRODUCTS

★ FLOOR BOXES ★ WIRING SPECIALTIES ★

HIGH QUALITY

EASILY INSTALLED

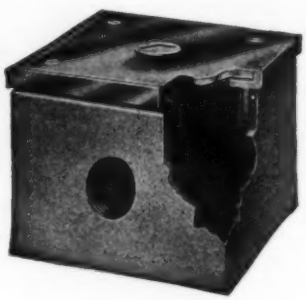
Save Precious Man Hours To *Help* Win the War

Every human occupation must be mobilized for the purpose of Victory.

Time saved in installing convenient Latrobe Floor Boxes and Wiring Specialties means more time for vital war production. For all industrial, commercial and residential jobs, whether temporary or permanent, Latrobe Products are preferred also because of their dependability and long life.

No. 100 Box with No. 206 Nozzle

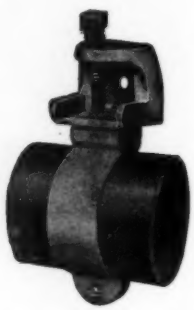
Latrobe Non-Adjustable Watertight Floor Boxes, with 3½ in. cover plates are approved for installation in wood floors.



FLOOR JUNCTION BOXES

5" x 5" x 4"

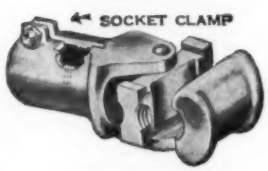
Variety of boxes with adjustable covers in stock for prompt shipment. Cover plates plain without screw plugs unless otherwise specified.



2½ in. Conduit attached to No. 403 Insulator Support with No. 466 Pipe Hanger.

No. 130 Adjustable Floor Box with No. 207 Bell Nozzle

Tapered Unit Receptacle fits tapered opening in adjusting ring.



SOCKET CLAMP

No. 605 Conduit Bender

Deep 1 in. internally threaded socket takes pipe handle direct.

FOR BEST RESULTS
STOCK LATROBE PRODUCTS
SELL LATROBE PRODUCTS

DURABLE

ECONOMICAL

FULLMAN MANUFACTURING CO. QUALITY AT LATROBE PA. SUPREMACY

FULLMAN MANUFACTURING CO.
LATROBE . . . PENNSYLVANIA

***TOO BUSY** to leave his desk for a photograph is R. G. Reiniger, treasurer of Globe Electric Co., Seattle, so the WS cameraman caught him with papers and pipe.*

Fiberglas Plants Get "E" Flag

Two plants of the Owens-Corning Fiberglas Corporation, one at Newark, Ohio, and the other at Ashton, Rhode Island—now fly the Army-Navy "E" flag, awarded for performance in the production of war materials.

New Appointments For Lamp Officials

Responsibility for all commercial activities involving lamps and special products at the Westinghouse Lamp Division, Bloomfield, N. J., has been assigned to Bernard H. Sullivan, manager of sales for the company. The announcement from George H. Bucher, president of the parent Westinghouse company, also said that Ralph C. Stuart has been appointed manager of manufacturing and engineering for the division. These changes have been made following the death of David S. Youngholm, vice-president of the Lamp Division.

Mr. Sullivan will continue to have charge of the Illuminating Engineering and Commercial Engineering Departments, as well as sales, advertising and division district offices. In addition, he will supervise activities of the Special Products Commercial Department, and will report to B. W. Clark, Westinghouse vice-president at headquarters in Pittsburg.

Under the new plan, Mr. Stuart, who has been manager of manufacturing, also will head engineering activities and will report to Mr. Bucher.

Reed Leaves GE: To Keep U. S. Post

Philip D. Reed, chairman of the board of General Electric Company, has announced his resignation of all of his company positions in order to comply with the requests of Ambassador John G. Winant and W. Averill Harriman to continue his work as deputy chief of the Harriman Mission in London. He has been in England on leave of absence from GE since July, 1942.

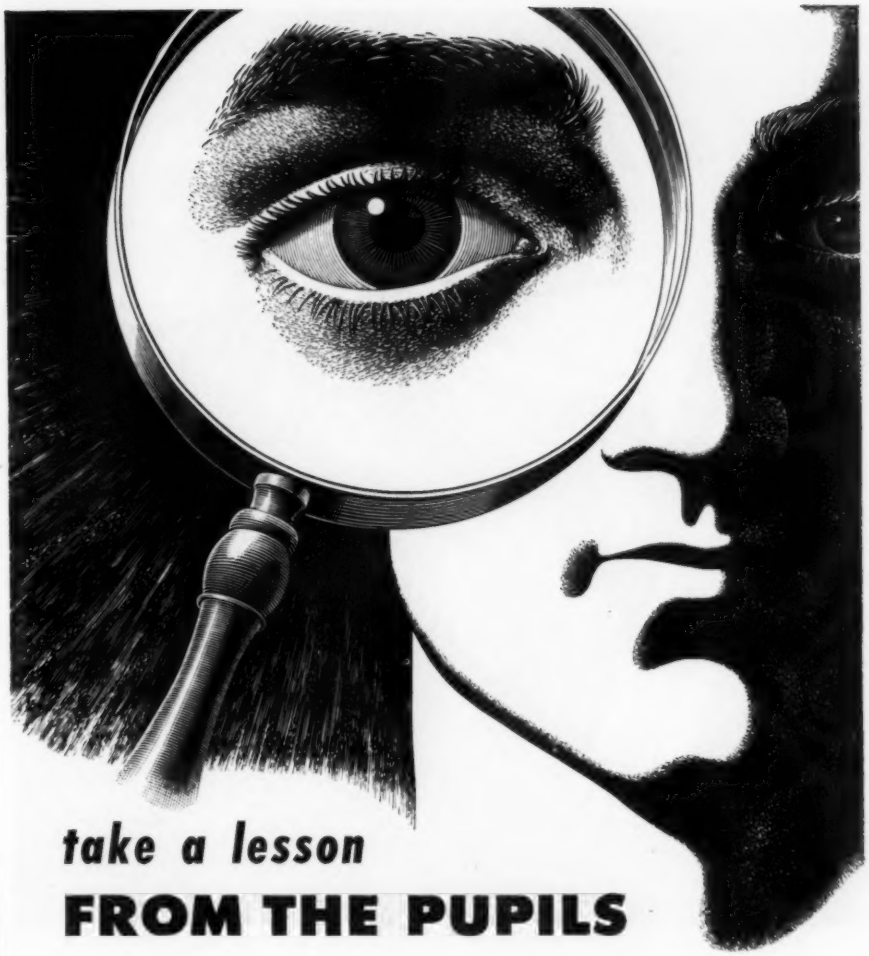
Mr. Reed stated that "in view of the indefinite duration of the government work overseas and in view also of the return to active service of Owen D. Young as active chairman of General Electric, I felt that I should relinquish my posts . . . "

The announcement was made in Washington where Mr. Reed arrived recently for a short period of consultation with various war agency officials.

Buy War Bonds with Dividends

The potential pool of corporate and other dividends as a source of purchasing power for war bonds was shown by the Belden Manufacturing Co., of Chicago and Richmond, Ind., when 8.6 percent of the last quarterly dividend declared by the company was put into war bonds. Whipple Jacobs, president of Belden, announced the success of the plan.

LONG TIME since a photograph of L. M. Burdick, branch manager of General Electric Supply Corp., Butte, Mont., has been printed in these pages, but the famous "climate" of the High Rockies keeps him looking the same.



take a lesson
FROM THE PUPILS

EYES are the skilled workman's most valuable tools. Because they normally react to varying intensities of light, doesn't mean that they can continuously do so over long periods without strain or fatigue.

Under ideal seeing conditions, the pupils are small, vision is sharp. Reduce the amount of illumination and the pupils enlarge to allow more light to enter —vainly trying for a clear picture. This means that the eyes must work harder, tire sooner—and invariably slow up the worker's efficiency.

Higher intensities of illumination are no mere luxury. Industrial executives have learned this lesson and are speeding production, reducing fatigue and errors with lighting *properly designed* for every task.

Goodrich specialists in industrial illumination are at your service to solve these problems in vital war industries.

Highlite *Stocklite* *Diffuso Floodlight* *Seprable RLM Dome*

GOODRICH RLM

Protecting vital plants with floodlighting — saving man-hours in production —Goodrich industrial fixtures are serving America's war effort everywhere.

LIGHTING FOR INDUSTRY

GOODRICH ELECTRIC COMPANY

OFFICES IN ALL PRINCIPAL CITIES

GENERAL OFFICES AND FACTORY: 4610 BELLE PLAINE AVENUE, CHICAGO, ILL.

SOLD ONLY THROUGH ELECTRICAL WHOLESALERS

To help you help your customers

This up-to-the-minute Manual tells how to make the most of lamps and lighting. Use it to build good will and make a real contribution to war production efficiency.

A limited supply is available to qualified industrial distributors and salesmen. For copies, get in touch with

CHAMPION LAMP WORKS
Lynn, Massachusetts
A DIVISION OF CONSOLIDATED ELECTRIC LAMP CO.

Ward Leonard Gets "E" Award

At ceremonies at the company's plant in Mount Vernon, N. Y., the Army-Navy "E" pennant was awarded to the Ward Leonard Electric Co., for outstanding efficiency in the production of equipment for the armed forces.

Leonard Kebler, president of Ward Leonard, received the pennant from Rear Admiral William C. Watts, U.S.N. (retired). After the pennant had been run up company's flagpole, the company's 2,200 employees marched to the auditorium where John Seikas, president of the Ward Leonard employees association, received the "E" insignia from Capt. James T. Rudhy, U. S. Army Signal Corps.

At the same ceremony, Mr. Kebler awarded plaques to three men who have been connected with the company since it was founded fifty years ago. They are George W. Camp, Thomas Layden, and Joseph Lynch.

From the Sales Front

Out in the Cleveland Territory, where Frank Seiler now is making sales records for WHOLESALER'S SALESMAN, some one launched on a bit of philosophy in which he more or less met himself coming back. Frank Seiler gathered it up in his travels and sent it to us, as follows:

"An engineer is said to be a man who knows a great deal about very little, and who goes along knowing more and more about less and less, until finally he knows practically everything about nothing; whereas:

"A salesman, on the other hand, is a man who knows very little about a great deal and keeps on knowing less and less about more and more, until he knows practically nothing about everything.

"The buyer starts out knowing practically everything about everything, but ends up knowing nothing about anything, due to his association with engineers and salesmen."

TID-BITS

A ton of scrap conserves 4 tons of mineral wealth.

A new plastic water pipe that withstands heat and cold has been developed after eight years of research. Its use will make possible the release of copper and iron for use in weapons.

It takes 30,000 pounds of rag content bond to make enough blueprint paper for one battleship.

Welding is the newest of the major trades. While there were 75,000 welders in 1939, there are 280,000 at work in the United States today.

One company alone has 1,750 research men hard at work in 16 laboratories hunting for bigger, better, and more scientific ways of blasting the Axis.

Radio engineers have developed a pocket radio receiver not much larger than the average notebook—six inches high and about two inches thick. The miniature set has a crystal receiver which fits into the ear.

Engines for bomber planes are now coming from a new plant by the trainload—a rate originally scheduled for next December.

One of industry's most valuable contributions to the war effort is the all-welded M-4 tank now rolling off assembly lines in trainload quantities. Principal advantages in this latest type land dreadnaught are increased firepower, lower silhouette, greater maneuverability, and heavier armor.

The U. S. steel industry has a producing capacity nearly 65 percent greater than the combined capacity of Germany and all of Axis Europe.

Transparent plastic shells or "bubbles" which an American factory is producing for warplanes give a wider range of vision to pilots, bombardiers and gunners. Some planes have a plastic nose, rear gun turrets, observer's dome, empennage, and fuselage windows. This material saves enough weight to give an extra bomb a "free ride."

To prevent chronic absenteeism, a war plant posted a simple chart for each department showing the number of men missing and the amount of production lost. Absences were cut in half the first week.

Among industry's latest contributions to the war effort are two famous "shooting irons:" the Oerlikon 20 mm anti-aircraft gun which shoots like a garden hose, spraying several hundred shells a minute, and the new deadshot, vestpocket mortar which tosses 3 pound packages of TNT with deadly accuracy up to a distance of 2,000 yards and puts out projectiles at the rate of 35 a minute.

RE-LIGHTING

the new manpower / production *requirement*

Vital to plants built and lighted for daylight operation

Most plants operating today were designed and built for peacetime, *daylight* working schedules. Wartime production demands night work. *Lighting based on daylight conditions is inadequate to serve the needs of night workers.*

Night production is generally acknowledged to be anywhere from 20% to 40% less efficient than daytime production. And poor lighting, with its consequent eyestrain, fatigue, and lower working efficiency, is a major cause of this slump.

Re-lighting for 24-hour-a-day war production is the easiest, most economical remedy for this condition. Re-lighting does not mean discarding your present lighting system. It merely means bringing the equipment you have up to date by relocating lamps to eliminate glare and shadow; increasing lamp wattages, re-spacing lamps, installing additional equipment to insure uniform lighting levels throughout your plant. A Silv-A-King lighting engineer can tell you exactly.

Silv-A-King has specialized on industrial lighting for 21 years. Silv-A-King quality equipment (fluorescent or incandescent) plus a Silv-A-King "engineered layout" makes an unbeatable combination.

BRIGHT LIGHT REFLECTOR COMPANY, INC.
1031 Metropolitan Avenue, Brooklyn, N. Y.

Send for your copy of our 16-page book: "Light Is An Essential Production Tool"

SILV-A-KING MAKES *Light* WORK FOR YOU

When You See "Lloyd" on the Starter

Pat. Nos.
2200443
22288210

YOU'VE GOT THE BEST!

Lloyd's start quicker—work better—last longer. Specified repeatedly as the standard of quality and performance.

Listed and Approved by Underwriters' Labs. Inc., and Canadian Engineering Standards Association.

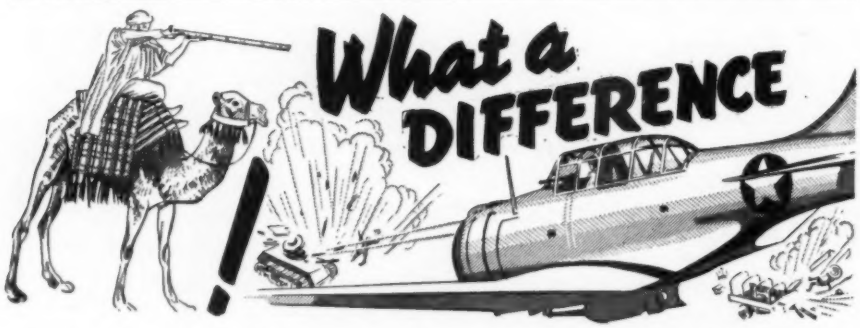
Certified by Electrical Testing Lab.-Spec. 6
Certified to Fleur-O-Lier Standards

LLOYD POLICY INSURES QUALITY

LLOYD PRODUCTS CO.

Dept. WS-2 Providence, R. I.

Representatives—Branch Offices—Warehouse Stocks in 23 Leading Cities



And there's just as much difference between the *streamlined* BRIEGEL METHOD of making conduit connections and former, old-fashioned methods!

Take a look at the picture below: two squeezes with the patented B-M "indenter" (which costs only $1.25) and you have a smooth, efficient job when you use B-M connectors and couplings. No extra turns or twists—no nuts to tighten!

The BRIEGEL METHOD saves you up to 50% on time and a substantial materials-saving (in keeping with today's thinking). Means more profit, too! Approved by Underwriters' Laboratory, of course.

DISTRIBUTED BY

The M. B. Austin Co.
Chicago, Ill.
Clayton Mark & Co.
Evanston, Ill.
Clifton Conduit Co.
Jersey City, N. J.
General Electric Co.
Bridgeport, Conn.
The Steelduct Co.
Youngstown, Ohio
Enameled Metals
Pittsburgh, Pa.
National Enameling & Mfg. Co.
Pittsburgh, Pa.
Triangle Conduit & Cable Co.
New Brunswick, N. J.

BRIEGEL METHOD TOOL CO., Galva, Ill.

Association News

KANSAS CITY—At a meeting held recently by the Electric Association of this city, Lt. Harold D. Knight, Naval Aviation Cadet Selection Board, showed sound films in technicolor of actual scenes from the Battle of Midway.

Newly elected president of the Association is C. G. Roush of Westinghouse Electric & Mfg. Co. Harry E. Moore replaces Jerry Weston as secretary-manager.

MILWAUKEE—The members of the Wisconsin Radio, Refrigeration & Appliance Association of Milwaukee met recently to decide what their program for the new year would be. It was decided that, due to present conditions, the Association would suspend dues collection for 1943 but would provide for a continuance of the Association office with frequent information bulletins and occasional meetings as warranted.

The Association is at present working on the Exchange Service idea whereby each member sends in a list of surplus items that are offered for sale and other items that are wanted. A compilation of the complete list will then be made and distributed to all members.

NEW ORLEANS—The Electrical Association of New Orleans at the final meeting of the year elected as its new president, J. Otto Kaelin, a long time active worker for the Association. Other officers were also elected, including the Executive Committee.

A. J. McCall, retiring president, made a report at this meeting covering the past activities of the Association and in closing suggested that the Association institute a General Planning Committee to prepare plans for 1943 and also to arrange for setting up a War-Time Committee to study and develop a program on "Industry Problems."

NEW YORK—At its annual meeting, the Electrical and Gas Association of New York City, re-elected as president, James W. Carpenter, v.p. Long Island Lighting Co. Other officers elected were: First v.p., S. J. O'Brien, pres. S. J. O'Brien Sales Corp., Second v.p., T. F. Barton, v.p. General Electric Co., Third v.p., T. H. Joseph, pres. E-J-Electric Installation Co., Fourth v.p., Norman L. Myers, eastern mgr. Electric Appliance Div. of Westinghouse Elec. & Mfg. Co., Treas., H. C. Calahan, district mgr. General Electric Supply Corp., Sec., James A. Sackett,

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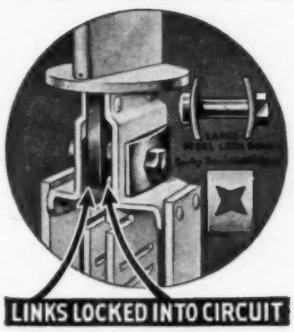

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In his annual report, Mr. Carpenter emphasized that "it is time for our industry to give its best thinking to post-war planning. It is toward that end that I believe the Association should direct its activities in the coming year."

CHICAGO—The Electric Association of Chicago has elected its 1943 officers and directors. The new president is C. J. Maloney, district-manager of Cutler-Hammer, Inc., treasurer, Fred T. Whiting, northwestern district-manager of Westinghouse Elec. & Mfg. Co., and secretary-treasurer, A. A. Gray.

The roster of the board of directors has remained unchanged with the exception of F. Lee Farmer who has been succeeded by D. E. Worrell.

The Association has been active on every front during the past year and even though certain specific promotional activities have been curtailed, the organization looks forward to continuing its constructive planning toward aiding the war effort.

PATERSON—The Passaic County Electrical League, Paterson, New Jersey joined the Bergen Electrical League on January 25 at the Hackensack Elks' Club to hear speaker Richard H. Osgood of the Okonite Company discuss ways in which one could help his own business during the war emergency, both as an individual and as a member of an Electrical League.

OBITUARIES

Charles B. Lord

Charles B. Lord, formerly connected with the Union Electric Supply Co., Providence, R. I., died recently at Edgewood, R. I. He was 60 years old. For the past 6 years he has been an illuminating engineer with the Narragansett Electric Company of that city.

Joseph M. Beach

Joseph M. Beach, for 37 years the Metropolitan New York sales representative for E. B. Latham & Co., electrical wholesalers, died recently at his Maplewood, N. J. home.

Mr. Beach handled the important job of industrial sales during the first World War and prior to his death was handling the same work among the industrials serving in World War II.

Surviving are his wife and two daughters, also a brother, Albert J. Beach who also has been a salesman for the Latham company for more than 37 years.

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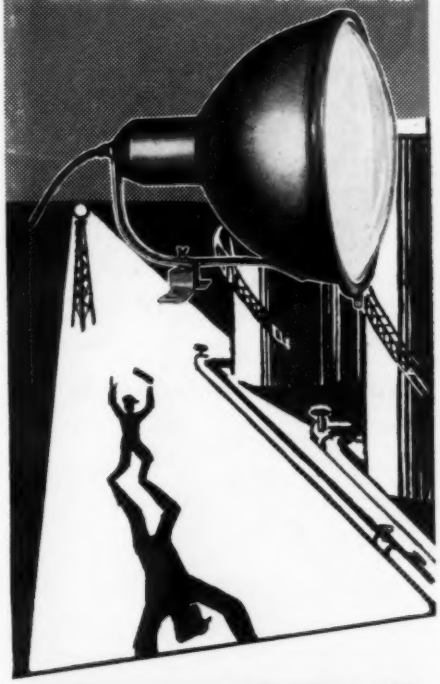

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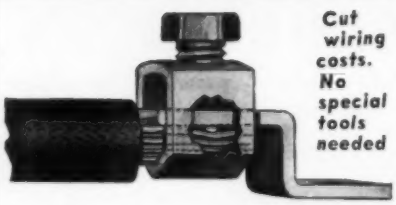

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MORE FACTS ON PRODUCTS

Circuit Breakers—Forty-page booklet, DD-29-060, covering "De-ion" circuit breakers manufactured by the Westinghouse Electric & Mfg. Co., East Pittsburgh, Pa., gives facts on design and operation of each breaker, describes special attachments, tells how to select circuit breaker best-suited for a particular application, and includes diagrams with exact dimensions of each breaker.

When writing mention WHOLESALER'S SALESMAN

Fluorescent Lighting—A folder on the subject of "Relighting with Fluorescent in War-time," published by Edwin F. Guth Co., St. Louis, Mo., reviews article on lighting that appeared in WPB's booklet "Plant Efficiency," and includes illustrations of the Company's various types of non-metallic fluorescent lighting units.

When writing mention WHOLESALER'S SALESMAN

Fluorescent Unit—Bulletin No. 310 describes and illustrates the new industrial "all non-metallic" fluorescent unit manufactured by Lighting Products Inc., Highland Park, Illinois.

When writing mention WHOLESALER'S SALESMAN

Lighting Equipment—A catalog published by the Dazor Mfg. Co., St. Louis, Mo., illustrates both the fluorescent and incandescent type of localized lighting units, explains the company's engineering service for special lighting problems, and includes general information on ordering its products.

When writing mention WHOLESALER'S SALESMAN

Portable Electric Drills—New handbook on portable electric drills recently published by The Black & Decker Mfg. Co., Towson, Maryland, covers such points as assembling the drill, the switch control, drill chucks and bits, how to use drill, and several important points on user maintenance and care.

When writing mention WHOLESALER'S SALESMAN

Military Service—Westinghouse Electric and Mfg. Co. of Pittsburgh has put together a helpful booklet entitled, "To Employees Entering Military Service." Topics discussed in booklet include installment purchases, insurance, allowances for dependents, income taxes, mortgages, rent, voting and the postwar status of the soldier.

When writing mention WHOLESALER'S SALESMAN

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DUPLEX LUGS

Cat. Nos. 1601-1615—Square end—one or two attaching bolt holes. Accurately machined all contact surfaces parallel. Receives two or more conductors of different sizes with equal pressure. Write sizes 4-1 to 900,000CM.

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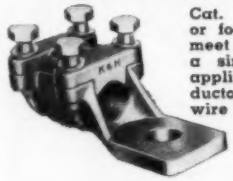

Cat. Nos. 1950-1974—Two or four bolts, designed to meet requirements where a single lug adequately applies to several size conductors. Cover range of wire sizes from 1-1/0 to 2,000,000CM solid or stranded.

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Cat. Nos. 400-449—One or two bolt holes. Lugs one piece designed for one wire size to give conductivity and contact surface equal to capacity of wire. All contact surfaces ground, faces parallel, wire sockets machined. Wire sizes 2-1 to 2,000,000CM.

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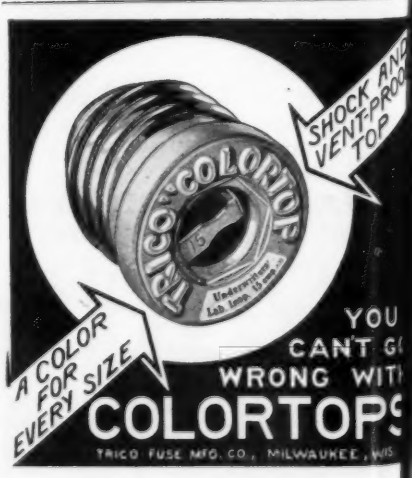

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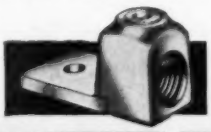
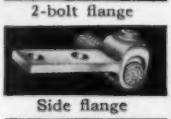


JUST FOR EXAMPLE— here are some of the standard Penn-Union Vitite terminal lugs:

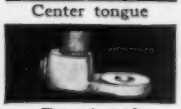
2-bolt flange

45° flange


Side flange

Center tongue

Round, 45°


Round, 90°

Round, offset

Round, center

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Penn-Union connectors are the first choice of leading utilities, industrials, electrical manufacturers and contractors. They have found that *"Penn-Union" on a fitting is their best guarantee of Dependability.*

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Conductor Fittings

Rheostats and Accessories—Two Bulletins, No. 60-A and No. 69, recently released by Ward Leonard Electric Co., Mount Vernon, N. Y., describe and illustrate Ward Leonard rheostats, parts and accessories.

When writing mention WHOLESALER'S SALESMAN

Safety Switches—Twenty-four page descriptive bulletin, No. 500, covers design and listings of various types of safety switches for industrial applications manufactured by Square D Company, Detroit, Mich.

When writing mention WHOLESALER'S SALESMAN

Signaling Devices—Schwarze Electric Co., Adrian, Michigan, is distributing to the trade a new catalog of electrical signaling devices. Catalog No. 42 contains various sections, each section printed in a different color; a general cross-indexing located in the back of the book; and a "Guide to Good Signaling" section that includes charts, graphs and tables with explanatory text to aid in the layout of signaling systems.

When writing mention WHOLESALER'S SALESMAN

Transformers—General Electric Company has available a 20-page booklet containing details of special applications, wiring diagrams, construction data and photographs of dry-type transformers for power and lighting circuits. Booklet GEA-897-J.

When writing mention WHOLESALER'S SALESMAN

Welding Accessories—New bulletin entitled, "Arc Welding Accessories for Women," recently issued by the Industrial Department of the General Electric Co. of Schenectady illustrates safety clothing and equipment especially designed for girl welding operators.

When writing mention WHOLESALER'S SALESMAN

Wire—A folder published by Walker Brothers, Conshocken, Pa., describes the new Walker "synthetic" insulated wire, includes a wire sample, lists features and its uses, and presents a short guide for ordering this material correctly.

When writing mention WHOLESALER'S SALESMAN

Wiring Systems—The Wiremold Co., Hartford, Conn., has announced publication of a new bulletin describing and illustrating industrial application of Wiremold No. 3000 wiring system. It also covers applications and installation of Plugmold outlet systems.

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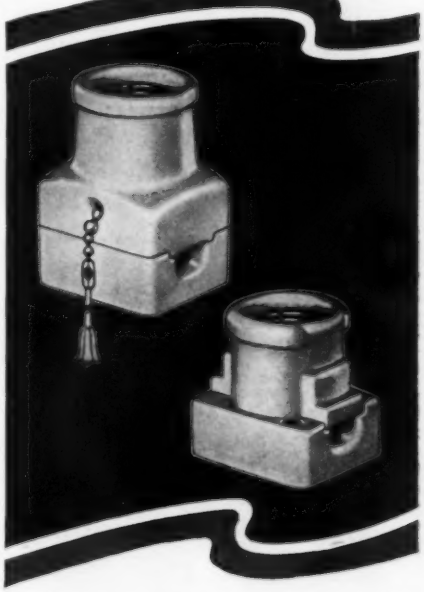
Save Critical Material



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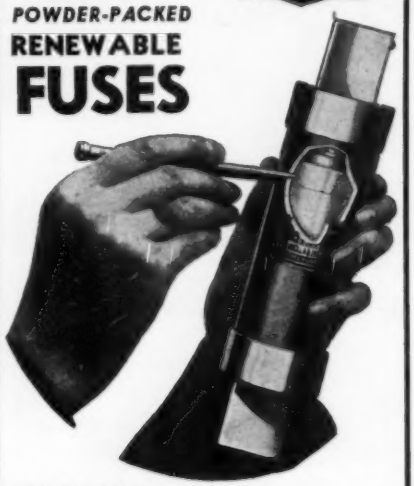

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